

Exhibit 7



Planet Depos®
We Make It *Happen*™

Transcript of Dr. Don R. Turnbull, Jr.

Date: May 28, 2024

Case: Headwater Research LLC -v- Samsung Electronics Co., Ltd., et al.

Planet Depos

Phone: 888.433.3767

Email: transcripts@planetdepos.com

www.planetdepos.com

1 IN THE UNITED STATES DISTRICT COURT

2 FOR THE EASTERN DISTRICT OF TEXAS

3 MARSHALL DIVISION

4 HEADWATER RESEARCH LLC,)

5 Plaintiff,)

6 vs.) CASE NO.

) 2:23-cv-00103 JRG RSP

7 SAMSUNG ELECTRONICS CO.,)

LTD., SAMSUNG ELECTRONICS)

8 AMERICA, INC., SAMSUNG)

DISPLAY CO., LTD.,)

9 Defendant.)

10 EXPERT ZOOM ORAL VIDEOTAPED DEPOSITION

11 DR. DON R. TURNBULL, JR.

12 May 28, 2024

13
14 EXPERT ZOOM ORAL VIDEOTAPED DEPOSITION OF DR.

15 DON R. TURNBULL, JR., produced as a witness at the

16 instance of the Plaintiff and duly sworn, was taken

17 in the above-styled and numbered cause on the 28th

18 day of May, 2024, from 11:03 a.m. to 3:42 p.m.,

19 before Michelle Hartman, Certified Shorthand Reporter

20 in and for the State of Texas and Registered

21 Professional Reporter, reported by computerized

22 stenotype machine at the offices of via Zoom

23 videoconference, pursuant to the Federal Rules of

24 Civil Procedure and the provisions stated on the

25 record or attached hereto.

APPEARANCES

FOR THE PLAINTIFF:

Mr. Philip Wang
RUSS AUGUST & KABAT
12424 Wilshire Blvd. 12th Floor
Los Angeles, California 90025
Telephone: 310-826-7474
E-mail: pwang@raklaw.com

FOR THE DEFENDANTS:

Mr. Jonathan Bright
and Ms. Sunwoo Lee
FISH & RICHARDSON P.C.
1180 Peachtree Street NE, 21st Floor
Atlanta, Georgia 30309
Telephone: 404-724-2756
E-mail: jbright@fr.com

and

Mr. Kevin Jang
QUINN EMANUEL URQUHART & SULLIVAN, LLP
1200 Abernathy Road NE Building 600
Suite 1500
Atlanta, GA 30328
Telephone: 415-875-6486
E-mail: kevinjang@quinnemanuel.com

ALSO PRESENT:

Mr. Lucas Shaker, videographer
Mr. Parker Simpson, remote tech

Transcript of Dr. Don R. Turnbull, Jr.
Conducted on May 28, 2024

3

INDEX

PAGE

DR. DON R. TURNBULL, JR.

Examination by Mr. Wang	6
Signature Page	138
Signature Page	139
Court Reporter's Certificate	140

EXHIBITS

EXHIBIT	DESCRIPTION	PAGE
Exhibit 1	Declaration of Don Turnbull, Ph.D	10
Exhibit 2	Curriculum vitae of Don Turnbull, Ph.D.	10
Exhibit 3	Samsung's PR4-2 Preliminary Claim Constructions and Extrinsic Evidence," a 10-page document dated March 28th, 2024	21
Exhibit 4	Samsung's PR4-2 Preliminary Claim Constructions and Extrinsic Evidence," 10-page document dated April 19th, 2024	29
Exhibit 5	U.S. Patent 8,406,733, Raleigh	48
Exhibit 6	U.S. Patent Number 9,192,117 B2 Raleigh	49
Exhibit 7	U.S. Patent Number 9,615,192 B2 Raleigh	50
Exhibit 8	A three-page document entitled "Dictionary of Computer and Internet Terms," Bates number SAM-HW-2_00215498 through 500	55

PLANET DEPOS

888.433.3767 | WWW.PLANETDEPOS.COM

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

EXHIBITS (cont.)

EXHIBIT	DESCRIPTION	PAGE
Exhibit 9	U.S. Patent No. 2006/0218395 A1 Maes	64

Transcript of Dr. Don R. Turnbull, Jr.
Conducted on May 28, 2024

5

1	THE VIDEOGRAPHER: Here begins media	11:03:49
2	number one in the videotaped deposition of Dr. Don	11:03:51
3	Turnbull in the matter of Headwater Research LLC	11:03:56
4	versus Samsung Electronics Co. LTD, et al. in the	11:03:59
5	United States District Court for the Eastern District	11:04:03
6	of Texas, Marshall Division, Case Number	11:04:05
7	2:23-cv-00103 JRG RSP.	11:04:07
8	Today's date is May 28th, 2024, and the	11:04:14
9	time on the video monitor is 11:03 a.m. Central time.	11:04:18
10	The remote videographer today is Lucas Shaker	11:04:22
11	representing Planet Depos. All parties of this	11:04:26
12	deposition are attending remotely.	11:04:28
13	Could counsel please voice identify	11:04:31
14	themselves and state whom they represent.	11:04:34
15	MR. WANG: This is Philip Wang of the law	11:04:36
16	firm Russ August & Kabat for Plaintiff Headwater	11:04:38
17	Research, LLC.	11:04:42
18	MR. BRIGHT: This is Jonathan Bright from	11:04:44
19	Fish & Richardson representing the Samsung Defendants	11:04:46
20	and the witness; and with me is Sunwoo Lee, also from	11:04:51
21	Fish & Richardson.	11:04:55
22	MR. JANG: This is Kevin Jang from the	11:04:57
23	law firm of Quinn Emanuel, also representing Samsung	11:04:58
24	and the witness.	11:05:02
25	THE VIDEOGRAPHER: Thank you, Counsel.	11:05:04

Transcript of Dr. Don R. Turnbull, Jr.
Conducted on May 28, 2024

6

1	The court reporter today is Michelle	11:05:04
2	Hartman representing Planet Depos. The witness will	11:05:06
3	now be sworn.	11:05:09
4	THE COURT REPORTER: Please raise your	11:05:10
5	right hand.	11:05:10
6	THE WITNESS: (Complies).	
7	DR. DON R. TURNBULL, JR.,	
8	having been first duly sworn, testified as follows:	
9	EXAMINATION	11:05:23
10	THE COURT REPORTER: Thank you. You may	11:05:25
11	lower your hand.	11:05:26
12	You may proceed, Counsel.	11:05:27
13	Q. (BY MR. WANG) Good morning,	11:05:29
14	Dr. Turnbull. My name is Philip Wang. I represent	11:05:30
15	the Plaintiff Headwater in this case.	11:05:33
16	Do you understand that you are under oath	11:05:37
17	today?	11:05:38
18	A. Yes.	11:05:39
19	Q. Have you testified under oath before?	11:05:45
20	A. Yes.	11:05:47
21	Q. How many times?	11:05:47
22	A. More than three dozen.	11:05:48
23	Q. More than 36 times --	11:05:51
24	A. Yes.	11:05:52
25	Q. -- have you --	11:05:52

Transcript of Dr. Don R. Turnbull, Jr.
Conducted on May 28, 2024

7

1	Do you understand that even though we're	11:05:59
2	conducting the deposition via Zoom today that the	11:06:00
3	testimony you give under oath is subject to the same	11:06:03
4	penalty of perjury as if you were testifying in a	11:06:07
5	Court of Law?	11:06:10
6	A. Yes.	11:06:11
7	Q. Do you have any documents with you right	11:06:14
8	now?	11:06:17
9	A. No.	11:06:18
10	Q. And on -- on your screen, do you have	11:06:20
11	anything open other than the Zoom, any chat or	11:06:22
12	messaging applications?	11:06:26
13	A. No. The only app I have open is the Zoom	11:06:27
14	app and then a completely blank desktop behind it.	11:06:30
15	Q. Is there anything that would prevent you	11:06:35
16	from thinking clearly and testifying truthfully	11:06:37
17	today?	11:06:39
18	A. No.	11:06:41
19	Q. Dr. Turnbull, you submitted a claim	11:06:51
20	construction declaration in this case, correct?	11:06:53
21	A. Yes.	11:06:56
22	Q. Who wrote your claim construction	11:06:59
23	declaration?	11:07:01
24	MR. BRIGHT: Objection: Form.	11:07:08
25	THE WITNESS: I suspect that I typed a	11:07:08

1	great deal of it, but some of the counsel that's here	11:07:09
2	with us today put in some pieces, but it was all	11:07:13
3	under my direction. It represents all of my thoughts	11:07:18
4	and opinions and I stand behind everything in the	11:07:21
5	declaration.	11:07:23
6	Q. (BY MR. WANG) Did the attorneys provide	11:07:24
7	you a first draft of your declaration?	11:07:25
8	A. I don't recall who had the template	11:07:33
9	first. I think it was possibly a blank template that	11:07:35
10	was sent to me that I began filling in.	11:07:39
11	Q. When were you retained to work on this	11:07:43
12	case?	11:07:45
13	A. I don't recall.	11:07:49
14	Q. You don't have any idea?	11:07:51
15	A. No, I really don't remember.	11:07:52
16	Q. When did you start working on your	11:07:54
17	declaration?	11:07:56
18	A. Sometime before it was due, maybe up to	11:08:00
19	two months before then, probably more work as we got	11:08:04
20	closer to the deadline.	11:08:08
21	Q. Do you recall how many hours you spent	11:08:11
22	preparing your declaration?	11:08:13
23	A. No. And I should have guessed that you	11:08:16
24	would ask that, but I didn't think about that.	11:08:18
25	Q. Do you have any idea?	11:08:22

Transcript of Dr. Don R. Turnbull, Jr.
Conducted on May 28, 2024

9

1	A. Not really. Less than a hundred, I'm	11:08:28
2	sure of that.	11:08:31
3	Q. More than 10 hours?	11:08:34
4	A. Oh, for sure.	11:08:36
5	Q. What did you do to prepare for this	11:08:43
6	deposition?	11:08:46
7	A. I reviewed the patent specification, the	11:08:48
8	claims, the file history for the patents, my	11:08:51
9	declaration; and I think the references, I cite some	11:08:58
10	computer dictionaries, I looked at those; and then	11:09:04
11	last Friday, I spent some time talking with Counsel	11:09:08
12	in preparation for today.	11:09:12
13	Q. Okay. When you say the "references you	11:09:15
14	cite," do you mean the computer dictionaries?	11:09:20
15	A. Exactly right.	11:09:23
16	Q. Any other references?	11:09:26
17	A. Nothing else comes to mind.	11:09:36
18	Q. And were they all dictionaries for the	11:09:37
19	term "agent"?	11:09:39
20	A. I think that's right, yes.	11:09:41
21	Q. And you don't recall if there were any	11:09:43
22	other terms?	11:09:45
23	A. No. If we begin discussing them and it	11:09:47
24	comes to mind, I will let you know, but I remember	11:09:52
25	that specifically.	11:09:55

1	Q. And who did you speak with on Friday in	11:09:56
2	preparation for your deposition?	11:10:07
3	A. Mr. Bright, Mr. Jang, and maybe some	11:10:09
4	other counsel as well that's present today.	11:10:11
5	Q. And how long was that meeting?	11:10:13
6	A. Part of an afternoon, part of a Friday	11:10:22
7	afternoon.	11:10:25
8	Q. An hour, two hours?	11:10:27
9	A. I would think a little more than two	11:10:28
10	hours.	11:10:31
11	Q. Was that meeting via Zoom?	11:10:39
12	A. Some video technology, I don't remember	11:10:42
13	if it was zoom or WebEx.	11:10:44
14	Q. Thank you, Dr. Turnbull. I will go ahead	11:10:54
15	and introduce your -- your declaration as an exhibit,	11:10:56
16	and so I will go ahead and send that as Exhibit 1.	11:10:59
17	(Exhibit 1 marked)	11:11:03
18	Q. (BY MR. WANG) And then I will also send	11:11:03
19	your C.V. that was provided along with your	11:11:05
20	declaration, so I will send those first two exhibits	11:11:08
21	via the chat.	11:11:13
22	(Exhibit 2 marked)	11:11:14
23	Q. (BY MR. WANG) Would you please download	11:11:15
24	and then open the first exhibit.	11:11:32
25	A. I have got it and I pulled it up, so I	11:11:37

1	think I'm with you, we're in sync.	11:11:41
2	Q. Okay. So I'm going to introduce as	11:11:43
3	Exhibits 1 and 2, in order, of Dr. Turnbull's	11:11:45
4	deposition. Exhibit 1 is the declaration of Don	11:11:49
5	Turnbull, Ph.D. dated April 29th, 2024, and the	11:11:54
6	document is 20 pages.	11:12:04
7	Do you have this exhibit open right now,	11:12:07
8	Dr. Turnbull?	11:12:10
9	A. Yeah, I downloaded it and I've got it	11:12:11
10	open right now.	11:12:14
11	Q. Does this appear to be a true and correct	11:12:15
12	copy of the claim construction declaration you	11:12:18
13	submitted in this case?	11:12:22
14	A. It sure looks like it.	11:12:24
15	Q. And then could you open Exhibit 2?	11:12:26
16	A. Okay, I didn't see that posted to the	11:12:33
17	chat yet.	11:12:35
18	Q. I sent it the same time as Exhibit 1.	11:12:40
19	A. Oh, okay.	11:12:42
20	Q. So it should be right next to it or right	11:12:44
21	below it.	11:12:51
22	A. I see it now. I have downloaded it, and	11:12:52
23	I've got it open here. So I'm in sync with you with	11:13:01
24	that as well.	11:13:04
25	Q. All right. So I'm introducing as	11:13:05

1	Exhibit 2 a document entitled Don Turnbull, Ph.D.,	11:13:07
2	which is your C.V. that was submitted along with the	11:13:14
3	declaration. It is a 10-page document.	11:13:19
4	Dr. Turnbull, does that appear to be a	11:13:24
5	true and correct copy of your C.V. that was submitted	11:13:26
6	along with your declaration?	11:13:29
7	A. Yes, it looks like it.	11:13:31
8	Q. Okay. You can close Exhibit 2 for now.	11:13:33
9	Dr. Turnbull, does your declaration	11:13:43
10	Exhibit 1 contain a complete statement of your claim	11:13:45
11	construction opinions in this case?	11:13:48
12	A. Currently, yes.	11:13:53
13	Q. Have you formed additional opinions since	11:13:57
14	you submitted a declaration?	11:13:59
15	MR. BRIGHT: Objection: Form.	11:14:08
16	THE WITNESS: Nothing comes to mind.	11:14:08
17	Q. (BY MR. WANG) Why do you say "currently,"	11:14:09
18	then?	11:14:11
19	A. I guess I may have thoughts at some other	11:14:14
20	point on these terms or other terms if I'm asked to	11:14:17
21	give an opinion on them.	11:14:21
22	Q. Okay. Sitting here, do you have any	11:14:23
23	corrections to your claim construction declaration?	11:14:26
24	A. No, not really. I think one of the	11:14:29
25	figures maybe should be centered together, but that	11:14:40

1	is just a minor formatting thing.	11:14:44
2	Q. Okay. But apart from that issue about	11:14:46
3	centering a figure, do you have any corrections or	11:14:49
4	changes to your declaration?	11:14:51
5	A. Nothing I can think of. If we see	11:14:54
6	something as we go along, I will let you know.	11:14:57
7	Q. Sitting here, do you have any additional	11:15:01
8	opinions to add to your report?	11:15:03
9	A. Not sitting here today, no.	11:15:10
10	Q. So you don't intend to offer any opinions	11:15:15
11	outside your report?	11:15:17
12	A. Unless I'm asked to.	11:15:21
13	Q. Do you think it's appropriate to offer	11:15:31
14	additional opinions in a deposition that aren't in	11:15:33
15	your report?	11:15:35
16	MR. BRIGHT: Objection: Form.	11:15:36
17	THE WITNESS: I'm not an attorney, if	11:15:37
18	someone asks me a question, I will do my best to	11:15:38
19	answer it or do research required to answer a	11:15:41
20	question.	11:15:43
21	Q. (BY MR. WANG) Can you please turn to	11:15:48
22	paragraph 19 of your declaration.	11:15:49
23	A. Okay. Okay. And so that's paragraph 19	11:15:57
24	on page eight of my report?	11:15:59
25	Q. Yes. And would you prefer if I refer to	11:16:01

1 it by page number? I found that paragraph number is 11:16:10
2 more -- more specific. 11:16:13

3 A. I think paragraph number is fine. I 11:16:14
4 thought it would be good just at the beginning to get 11:16:16
5 one level set for where we're at. 11:16:19

6 Q. So I will start with on page eight of 11:16:22
7 your declaration, paragraph 19. And I may -- in 11:16:24
8 general, I will refer to paragraph numbers of your 11:16:28
9 declaration, but if you have trouble finding it and 11:16:30
10 need the page number, just let me know. 11:16:34

11 So in paragraph 19, you say that in 11:16:37
12 preparation for this declaration, you reviewed the 11:16:39
13 '733, '117 and '192 patents and their prosecution 11:16:42
14 histories and the parties' proposed constructions, 11:16:46
15 correct? 11:16:49

16 A. That's right. And per your question 11:16:50
17 earlier, I did look at the proposed constructions 11:16:51
18 from the complaint. I had forgotten about that. 11:16:54

19 Q. What do you mean the proposed 11:16:59
20 constructions from the complaint? 11:17:01

21 A. I -- at least my memory is the 11:17:04
22 constructions were in some court documents, so I 11:17:07
23 think of it as the complaint. 11:17:09

24 Q. So there is some court document, and in 11:17:16
25 your mind, you think of it as the complaint, correct? 11:17:19

1	A. Yeah, just the court document.	11:17:22
2	Q. Anything else other than what's described	11:17:28
3	in paragraph 19?	11:17:33
4	A. Other than the computer dictionaries that	11:17:37
5	we discussed earlier.	11:17:40
6	Q. Okay. So the computer dictionaries is	11:17:41
7	not mentioned in this paragraph, but you would	11:17:46
8	include it there?	11:17:49
9	A. It is something that I reviewed.	11:17:51
10	Q. Okay. And as we talked about before,	11:17:53
11	those were the few dictionary definitions for the	11:17:57
12	word "agent" correct?	11:18:01
13	A. That's correct.	11:18:04
14	Q. Anything else that -- other than what we	11:18:07
15	have discussed?	11:18:09
16	A. Nothing else comes to mind right now.	11:18:16
17	Q. Any other extrinsic evidence?	11:18:20
18	A. Nothing else comes to mind right now.	11:18:31
19	Q. How much time did you spend reviewing the	11:18:40
20	prosecution histories of the asserted patents?	11:18:42
21	A. I really don't remember. I remember	11:18:49
22	certainly scrolling through pieces of it, they're	11:18:51
23	quite large, and then probably doing some searches to	11:18:55
24	either find sections or key words and things like	11:18:59
25	that and then reading around there and then probably	11:19:04

1	reviewing or scrolling through and looking at other	11:19:10
2	pieces of them as well.	11:19:13
3	Q. You don't offer any opinions about the	11:19:15
4	prosecution histories, do you?	11:19:17
5	MR. BRIGHT: Objection: Form.	11:19:23
6	THE WITNESS: I don't think I have	11:19:24
7	anything in this declaration.	11:19:25
8	Q. (BY MR. WANG) Are you aware one way or	11:19:30
9	the other whether there are pending or filed IPR	11:19:32
10	proceedings on the asserted patents?	11:19:38
11	A. No, I'm not.	11:19:42
12	Q. You're not aware if they exist one way or	11:19:46
13	the other?	11:19:49
14	A. No.	11:19:49
15	Q. So you did not consider any IPRs on the	11:19:50
16	asserted patents?	11:19:54
17	MR. BRIGHT: Objection: Form.	11:19:57
18	THE WITNESS: No.	11:19:57
19	Q. (BY MR. WANG) And you did not consider	11:19:58
20	any materials from IPR proceedings on the asserted	11:20:01
21	patents?	11:20:08
22	A. I guess I couldn't have. If I didn't	11:20:09
23	know there was an IPR, I wouldn't know any materials	11:20:11
24	would be related to that.	11:20:14
25	Q. Did you consider any prior art references	11:20:26

1	in forming your opinions on the asserted patents?	11:20:28
2	MR. BRIGHT: Objection: Form.	11:20:33
3	THE WITNESS: I don't recall doing that.	11:20:35
4	Q. (BY MR. WANG) Did you review any prior	11:20:39
5	art references in offering your opinions in your	11:20:40
6	declaration?	11:20:44
7	A. I don't recall doing that either.	11:20:48
8	Q. Can we jump to paragraph 30 of your	11:21:06
9	report where you state "the level of ordinary skill	11:21:08
10	in the art."	11:21:10
11	A. I'm with you.	11:21:12
12	Q. Okay. What would you say is the field of	11:21:13
13	the asserted patents?	11:21:25
14	A. I would say broadly information systems,	11:21:29
15	but I think computer science fits well that we have	11:21:32
16	here. In terms of what a degree could be composed	11:21:36
17	of, we have computer science, electrical engineering	11:21:40
18	or related field, and that's in there because, as you	11:21:45
19	know, you know, different schools have different	11:21:49
20	focus depending on the degree name.	11:21:53
21	You know, for example, UT Austin even has	11:21:56
22	something in between computer science and electrical	11:22:00
23	engineering I think called computer and electrical	11:22:02
24	engineering or CEC. So just the variance of those	11:22:06
25	type of degrees I think all fit in here. But again,	11:22:11

1 also information systems, it could be that a related
2 field is some kind of maybe even industrial systems
3 engineering, something like that as well.

4 Q. Just an example, a related field would be
5 industrial systems engineering --

6 A. Yes, that would --

7 Q. -- probably?

8 A. -- that could be one example.

9 Q. In paragraph 30 you say "three to five
10 years of experience in services and application
11 implementation and communication networks."

12 Do you see that?

13 A. Yes.

14 Q. What do you mean by that?

15 A. Just generally a broad statement to give
16 us kind of a framework. "Services" I think broadly
17 would be information services, or, you know, we have
18 a term now called "softwares of service" that I guess
19 is an industry term for applications and how they
20 might work with a server or be run exclusively on a
21 server; and then "application implementation" would
22 mean building the application or doing the
23 programming required to build part of the
24 application.

25 You know, applications now can be so

1	large that, you know, it is not one person that could	11:23:26
2	do it, you may be part of a team, so you may have	11:23:29
3	some skills related to part of that implementation.	11:23:33
4	Q. And is that a fair description of the	11:23:37
5	field of the asserted patents?	11:23:38
6	A. Yeah, I would say so.	11:23:41
7	Q. Do you know what the priority date of the	11:23:51
8	asserted patents is?	11:23:53
9	A. 2009 or 2010.	11:24:04
10	Q. That's your understanding of the time	11:24:06
11	frame?	11:24:07
12	A. That is just my -- my memory of it, yes.	11:24:07
13	Q. And I don't believe you have a date in	11:24:10
14	the -- in paragraph 30 or that nearby sections.	11:24:12
15	Would that be the date that you're applying?	11:24:15
16	A. Yes.	11:24:23
17	Q. And correct me if you see the date	11:24:23
18	somewhere, but I don't see it here in paragraphs 20	11:24:35
19	to 30.	11:24:39
20	A. No, I don't have a date in there. That	11:24:39
21	is just my rough recall of what the priority date for	11:24:41
22	I think what the earliest patent was.	11:24:45
23	Q. But the understanding that you're	11:24:49
24	applying for a person of skill would be of that time	11:24:51
25	frame?	11:24:53

1	A. Yes, so the priority date.	11:24:56
2	Q. Would you say that -- persons who would	11:25:09
3	have at least a bachelor's degree and then three to	11:25:11
4	five years of experience, how did you come up with	11:25:13
5	the three to five years as opposed to one to two, for	11:25:16
6	example?	11:25:22
7	A. I don't remember if it was suggested to	11:25:24
8	me. It just seemed to fit with some skills and	11:25:25
9	experience. As I say here, I satisfied these	11:25:29
10	qualifications, I exceed them, but I was trying to	11:25:34
11	think of people that have worked for me or I've been,	11:25:37
12	you know, directing in similar tasks or students that	11:25:43
13	I had, mostly graduate students, and what their	11:25:46
14	skills were like and how that matched up to what I'm	11:25:50
15	saying here a person of skill would have. So it is	11:25:55
16	based on those thoughts.	11:25:57
17	Q. Okay. And in paragraph 29, you have some	11:26:02
18	factors that may be considered in determining the	11:26:05
19	level of skill. Were any of those factors	11:26:10
20	significant in supporting your opinion or belief that	11:26:14
21	a POSITA would have three to five years of work	11:26:20
22	experience?	11:26:23
23	A. Yeah, I think they all have some	11:26:24
24	influence there. You know, part of the skills and	11:26:27
25	experience would be understanding, as I say here, you	11:26:30

1 know, what existed before then, so prior art 11:26:34
2 solutions, understanding the technologies, therefore 11:26:37
3 the innovations and which might be more appropriate. 11:26:45
4 Something very recent might be not as well proven, so 11:26:48
5 you might want to rely on something else. 11:26:54

6 So it is understanding the pace of 11:26:56
7 innovation with this type of technology, how 11:26:59
8 complicated the technology might be, and that's kind 11:27:02
9 of the technology environment at large, and then 11:27:05
10 again, what kind of education level that someone may 11:27:07
11 have and how that informs this in terms of their 11:27:10
12 skills. 11:27:13

13 Q. Thank you, Dr. Turnbull. So I'm going to 11:27:18
14 introduce another exhibit and I will send it in the 11:27:21
15 chat, so could you please download it and open it. 11:27:26

16 (Exhibit 3 marked) 11:27:31

17 THE WITNESS: So this is Exhibit 3 and I 11:27:44
18 have it open here. 11:27:46

19 Q. (BY MR. WANG) All right. So I'm 11:27:48
20 introducing it as Exhibit 3, "Samsung's PR4-2 11:27:50
21 Preliminary Claim Constructions and Extrinsic 11:27:57
22 Evidence." It's a 10-page document, and this 11:28:00
23 document is dated March 28th, 2024. 11:28:03

24 Dr. Turnbull, did I accurately read the 11:28:11
25 title of the document? 11:28:17

1	A. You might have. I was just looking at	11:28:20
2	the document. I don't even see that date at the	11:28:22
3	beginning. It must be at the end of document.	11:28:25
4	Q. Sure. We will look at that in a second,	11:28:27
5	but could you look at the title and confirm -- or	11:28:29
6	read the title.	11:28:34
7	A. Sure. I think the title says "Samsung's	11:28:36
8	PR4-2 Preliminary Claim Constructions and Extrinsic	11:28:40
9	Evidence."	11:28:46
10	Q. And then if you turn to page nine of the	11:28:48
11	document, do you see the date March 28th --	11:28:51
12	March 28th, 2024, and it is signed by your counsel,	11:28:54
13	Mr. Bright, who is in this deposition?	11:29:00
14	A. I see that on page 10, March 28th.	11:29:04
15	Q. Have you seen this document before?	11:29:11
16	A. I don't recall. I certainly have seen	11:29:17
17	things in tables like this. And the formatting is so	11:29:19
18	generic, it doesn't elicit a memory.	11:29:22
19	Q. Okay. You testified before that you had	11:29:25
20	reviewed information about constructions and I	11:29:28
21	believe you called it in the "complaint."	11:29:32
22	Was this the document or type of document	11:29:39
23	you were referring to?	11:29:41
24	A. Yes.	11:29:42
25	Q. And so it may have been this document or	11:29:43

1	something like this that you were -- that you	11:29:47
2	reviewed and that you were referring to?	11:29:50
3	A. Yes.	11:29:52
4	Q. Can you please turn to page four of the	11:29:58
5	document.	11:30:01
6	A. Okay, I'm with you.	11:30:01
7	Q. Do you see that on page four, there is a	11:30:03
8	table for the '733 Patent?	11:30:06
9	A. Yes, I see that.	11:30:09
10	Q. And that it identifies 13 claim terms?	11:30:14
11	A. Yes, following onto the next page.	11:30:17
12	Q. Let me ask you a separate question first,	11:30:29
13	Dr. Turnbull. You've been involved in a lot of	11:30:31
14	patent litigation, correct?	11:30:33
15	A. Yeah, a significant amount, yes.	11:30:37
16	Q. How -- how many cases -- I think you said	11:30:39
17	you testified in more than 36, but your involvement?	11:30:43
18	A. It's possible that some of the	11:30:52
19	depositions or testimony were for multiple ones for	11:30:54
20	the same case, so maybe not a pure total of 36 with	11:30:59
21	one-on-one ratio, but I've been involved in more	11:31:04
22	litigation than that over the past dozen or so years.	11:31:07
23	Q. So probably more than 50 cases, would you	11:31:14
24	say?	11:31:17
25	A. Maybe about that, about 50.	11:31:21

1 Q. And have you represented both defendants 11:31:23
2 or accused infringers and patent owners? 11:31:29

3 A. Yes, both. 11:31:34

4 Q. What percentages about? 11:31:35

5 A. I would say maybe in terms of total work, 11:31:44
6 probably 80 percent defendants, but sometimes that 11:31:46
7 would also be the patent owners. I have defended a 11:31:57
8 patent owner in an IPR, so that's both an IPR and a 11:32:04
9 defendant that's a patent owner, as opposed to a 11:32:08
10 plaintiff. 11:32:10

11 Q. And you have several of your own patents, 11:32:10
12 correct? 11:32:12

13 A. I have one and I think a couple of 11:32:14
14 pending patents as well. 11:32:16

15 Q. Do you understand that in patent 11:32:18
16 litigation, the plaintiff or patent owner always 11:32:19
17 asserts that the patent is infringed and valid? 11:32:22

18 MR. BRIGHT: Objection to form. 11:32:28

19 THE WITNESS: I'm not sure I understood 11:32:30
20 the question. 11:32:31

21 Q. (BY MR. WANG) Oh. Do you understand that 11:32:33
22 in patent litigation, the plaintiff or patent owner, 11:32:35
23 they always assert that the patent is infringed and 11:32:37
24 valid? 11:32:41

25 MR. BRIGHT: Objection: Form. 11:32:44

1	THE WITNESS: I can't think of something	11:32:47
2	I have been involved that's an exception to that, so	11:32:48
3	that seems generally something, yes, that I have	11:32:52
4	seen.	11:32:54
5	Q. (BY MR. WANG) And do you understand that	11:32:56
6	in patent litigation, defendants or accused	11:32:57
7	infringers always assert that the patent is not	11:33:00
8	infringed and invalid?	11:33:03
9	MR. BRIGHT: Objection to form.	11:33:07
10	THE WITNESS: I don't know if that's	11:33:09
11	always the case. In my experience, I think that's	11:33:10
12	mostly what I have dealt with.	11:33:14
13	Q. (BY MR. WANG) Okay. Have you ever seen a	11:33:16
14	patent or heard of a patent where more than three	11:33:22
15	terms in the patent were found to be indefinite?	11:33:24
16	MR. BRIGHT: Objection to form.	11:33:35
17	THE WITNESS: Yes, I would think so.	11:33:35
18	Q. (BY MR. WANG) Okay. What examples do you	11:33:37
19	have?	11:33:37
20	A. Oh, gosh, I just have worked on too many,	11:33:38
21	but I think it's very likely that I have worked on	11:33:42
22	some with many terms marked as indefinite.	11:33:45
23	Q. Found by -- by the Court or a jury to be	11:33:50
24	indefinite is my question.	11:33:54
25	A. Oh, yeah, I just don't have any recall of	11:33:56

1 that. It is likely that it could have happened in 11:33:59
2 something I have worked on or something that I had 11:34:03
3 read about, but nothing comes to mind sitting here 11:34:05
4 today. 11:34:08

5 Q. Yeah, I'm not asking you to speculate. 11:34:08

6 So I'm asking you: Do you have any 11:34:10
7 recollection or have -- do you remember or have you 11:34:14
8 heard of a patent where more than three terms in the 11:34:18
9 patent were found by the Court or a jury to be 11:34:21
10 indefinite? 11:34:24

11 MR. BRIGHT: Objection to form. 11:34:27

12 THE WITNESS: I just don't have a memory 11:34:28
13 of -- of that kind of thing. 11:34:29

14 Q. (BY MR. WANG) The same question for more 11:34:31
15 than two terms? 11:34:32

16 A. Yeah, I just don't remember any rulings. 11:34:36
17 Things that I have worked on, I have just kind of 11:34:39
18 taken out of my memory. You know, going back as far 11:34:43
19 as I've been doing this type of work, I just don't 11:34:46
20 remember. 11:34:48

21 Q. So, sitting here, you can't remember any 11:34:49
22 instances where more than two terms of the patent 11:34:52
23 were found to be indefinite? 11:34:57

24 A. No, nothing comes to mind. 11:35:00

25 Q. Let's turn to page five. On page five 11:35:04

1	there were -- this is a table for the '117 Patent.	11:35:07
2	Do you see that?	11:35:13
3	A. It looks like it begins on page five,	11:35:14
4	yes.	11:35:19
5	Q. And do you see that beginning on page	11:35:19
6	five, there is eight terms for the '117 Patent?	11:35:21
7	A. I see that, yes.	11:35:29
8	Q. Okay. And then let's turn to the table	11:35:30
9	that begins on page six for the '192 Patent.	11:35:38
10	And do you see that this lists six terms?	11:35:40
11	A. Yes.	11:35:44
12	Q. And so among these three tables for three	11:35:44
13	patents, it lists a total of 13, plus eight, plus six	11:35:51
14	terms, correct?	11:36:03
15	A. It looks like individually that's	11:36:07
16	correct. It looks like this may be some overlap and	11:36:08
17	pieces of the terms as well.	11:36:13
18	Q. So how many distinct rows of the terms	11:36:15
19	are there total, if you add that up?	11:36:18
20	A. 27. 27 terms.	11:36:26
21	Q. That are identified by Samsung in this	11:36:29
22	pleading, right?	11:36:32
23	A. I think that's what we have got for this,	11:36:33
24	yes.	11:36:35
25	Q. And do you see that for every term, for	11:36:35

1 all 27 terms, Samsung's proposed construction is 11:36:37
2 indefinite? 11:36:41
3 A. That's what I see here, yes. 11:36:48
4 Q. All right. And then on the far right 11:36:50
5 table, it also lists out extrinsic evidence, and do 11:36:52
6 you see that there is one reference to extrinsic 11:37:04
7 evidence in the first row and that's repeated in the 11:37:09
8 first row for all three tables with the same 11:37:12
9 citation? 11:37:18
10 A. I do see that. 11:37:19
11 Q. And there is no other extrinsic evidence 11:37:21
12 for that row -- for those rows, right? 11:37:28
13 A. Just what's in the table. 11:37:30
14 Q. And for all of the -- the other rows, for 11:37:32
15 the other 24 terms, there is no extrinsic evidence, 11:37:35
16 right? 11:37:40
17 MR. BRIGHT: Objection to form. 11:37:42
18 THE WITNESS: Yeah, just what we see 11:37:43
19 here. 11:37:44
20 Q. (BY MR. WANG) And then on page seven, it 11:37:45
21 states that Samsung identifies one or more experts 11:37:52
22 who may testify regarding the infringed patents. 11:37:55
23 Do you see that? 11:38:00
24 A. I do. 11:38:00
25 Q. All right. Let me introduce another 11:38:01

1	exhibit. You can close Exhibit 3. I will send it in	11:38:03
2	the chat.	11:38:16
3	(Exhibit 4 marked)	11:38:17
4	THE WITNESS: Oh, there it is. Okay, I	11:38:25
5	have got Exhibit 4 open.	11:38:37
6	Q. (BY MR. WANG) Okay. So I'm going to	11:38:38
7	introduce as Exhibit 4 a document entitled "Samsung's	11:38:40
8	PR4-2 Preliminary Claim Constructions and Extrinsic	11:38:43
9	Evidence," and from -- it is a 10-page document, and	11:38:51
10	from page seven of this document, it is dated	11:38:54
11	April 19th, 2024.	11:38:57
12	Do you see that?	11:39:06
13	A. I see that, yes.	11:39:08
14	Q. Does this appear to be a later version of	11:39:10
15	the same document that -- that we looked at before,	11:39:14
16	Exhibit 3?	11:39:16
17	A. A quick glance looks like it's very	11:39:30
18	similar, yes, and it's got a later date.	11:39:33
19	Q. Okay. And can you look like at the	11:39:37
20	tables starting on page four.	11:39:42
21	A. Okay, I'm with you.	11:39:49
22	Q. Okay. And do these appear to be the same	11:39:51
23	as what we looked at before?	11:39:54
24	A. Without putting them side by side, it	11:40:00
25	does look very similar.	11:40:02

1	Q. And the first table for the '733 Patent,	11:40:04
2	it has 13 terms for the second table; on the '117	11:40:09
3	Patent, it has eight terms; and for the third table	11:40:13
4	on the '192 Patent is three terms.	11:40:17
5	Do you see that?	11:40:19
6	A. I think the last table has six terms.	11:40:21
7	Q. Oh, six terms, I'm sorry, yeah.	11:40:24
8	So it appears to have same number of	11:40:26
9	terms that we counted before?	11:40:28
10	A. Yes.	11:40:31
11	Q. And then on page seven, it has your name.	11:40:31
12	It says "Samsung identifies one or more experts,	11:40:37
13	including Don Turnbull, Ph.D."	11:40:40
14	Do you see that?	11:40:44
15	A. I do see that.	11:40:44
16	Q. Okay. We can close Exhibit 4.	11:40:45
17	Oh, but before we close it, does looking	11:40:52
18	at this refresh your recollection about if this was	11:40:56
19	one of the documents you reviewed in preparing for	11:40:58
20	your deposition or in preparing your declaration?	11:41:02
21	A. Again, it looks very similar, the	11:41:06
22	formatting and the tables, so it's very likely that	11:41:08
23	this or the other one or both are things that I	11:41:11
24	reviewed.	11:41:15
25	Q. Okay. And any other documents that could	11:41:15

1	have been or do you recall -- do you remember	11:41:17
2	reviewing more than three documents?	11:41:22
3	A. I certainly looked at more than three	11:41:27
4	documents.	11:41:30
5	Q. I meant the court type of documents you	11:41:30
6	were referring to.	11:41:33
7	A. Oh, I suspect I saw other court documents	11:41:35
8	as well, like I mentioned, the original complaint,	11:41:37
9	for one. There probably were some others that had	11:41:39
10	the court formatting with, you know, the same type of	11:41:45
11	first page.	11:41:48
12	Q. Okay. What else can you tell me about	11:41:52
13	those other documents you may or may not have	11:41:54
14	reviewed?	11:41:57
15	A. Nothing comes to mind.	11:41:58
16	Q. Let's go back to your declaration. Can	11:42:05
17	you turn to paragraph 19.	11:42:08
18	A. Okay. So we are back on Exhibit 1?	11:42:10
19	Q. Yes, Exhibit 1.	11:42:12
20	A. And paragraph 19, yes.	11:42:14
21	Q. And this is your "Materials Considered,"	11:42:16
22	correct?	11:42:19
23	A. That's right.	11:42:21
24	Q. You didn't review -- you don't list	11:42:22
25	Headwater's infringement contentions here, do you?	11:42:27

1 A. No, I don't know if that would be 11:42:29
2 included in the party's proposed constructions. I 11:42:36
3 would guess the infringement contentions at least 11:42:39
4 imply some claim construction ideas or at least what 11:42:43
5 the claim terms are about. 11:42:46

6 Q. Okay. Did you review Headwater's 11:42:49
7 infringement contentions? 11:42:51

8 A. It rings a bell, yes. 11:42:54

9 Q. Okay. And you believe that that's 11:42:55
10 captured in the party's proposed constructions? 11:42:58

11 A. I'm not sure if it comes to mind, now 11:43:04
12 that you have asked me that. 11:43:08

13 Q. Okay. So how are we supposed to know 11:43:09
14 what you reviewed or didn't or what was in your 11:43:11
15 materials considered? It sounds like what you have 11:43:14
16 here is not -- not correct. 11:43:16

17 MR. BRIGHT: Objection to form. 11:43:20

18 THE WITNESS: I'm not sure. This is what 11:43:25
19 I have in this declaration and I think we have 11:43:27
20 discussed the things that I looked at that I recall. 11:43:30
21 Mostly, again, for a lot of the court-related 11:43:33
22 documents, I remember looking at them and I remember 11:43:37
23 more about their formatting, again, the inclusion of 11:43:39
24 tables, for example. 11:43:43

25 Q. (BY MR. WANG) Okay. And so right now 11:43:43

1	your testimony is that you may have reviewed	11:43:49
2	Headwater's infringement contentions but you don't	11:43:52
3	remember?	11:43:54
4	A. Yes, that's fine.	11:43:55
5	Q. Can you turn to paragraph 25 of your	11:44:05
6	report.	11:44:08
7	A. Okay.	11:44:12
8	Q. So, here, you state the legal standard	11:44:15
9	for indefiniteness. Do you see that?	11:44:19
10	A. Yes.	11:44:22
11	Q. Did you obtain this understanding from	11:44:24
12	counsel?	11:44:26
13	A. I bet in part of the report, counsel gave	11:44:32
14	me the original text for, but I certainly looked at	11:44:37
15	issues related to this before. So the origin of the	11:44:40
16	idea didn't come from counsel on this case, at least	11:44:44
17	to me.	11:44:46
18	Q. Okay. And so you feel like you	11:44:47
19	understand the legal standards set forth in that	11:44:53
20	paragraph?	11:44:55
21	MR. BRIGHT: Objection to form.	11:44:59
22	THE WITNESS: With the caveat that I'm	11:45:02
23	not an attorney, that's me thinking about it as a	11:45:04
24	technical person, I think I have an understanding,	11:45:07
25	yes.	11:45:10

1	Q. (BY MR. WANG) And that was the	11:45:10
2	understanding that you applied in this case?	11:45:10
3	A. Yes, what I had listed here, and then my	11:45:14
4	own skills and experience applied to that, yes.	11:45:16
5	Q. Can you turn to the next paragraph,	11:45:19
6	paragraph 26.	11:45:21
7	A. Okay.	11:45:24
8	Q. Okay. And I'm going to ask you the same	11:45:24
9	questions. Did you obtain the legal understanding in	11:45:27
10	paragraph 26 from counsel?	11:45:32
11	A. Can you ask that question again? I was	11:45:44
12	just reading the paragraph.	11:45:46
13	Q. Sure. Did you obtain the legal	11:45:47
14	understanding or standards set forth in paragraph 26	11:45:49
15	from counsel?	11:45:51
16	A. I think I had an understanding of that	11:45:56
17	before this case. This text I suspect I worked with	11:45:57
18	counsel to come up with, but I bet it's pretty	11:46:02
19	boilerplate. So my -- this represents my	11:46:05
20	understanding, at least regarding this paragraph.	11:46:09
21	Q. And so your testimony is that this is a	11:46:13
22	paragraph that you worked on together with counsel,	11:46:15
23	you know, drafted or assisted in drafting?	11:46:19
24	A. Yeah, I don't remember who put what	11:46:23
25	together. It is not likely I would have had this, it	11:46:25

1 is probably some boilerplate, but certainly I read 11:46:27
2 through it; and if I had questions, I would have 11:46:31
3 discussed it with counsel, I don't recall if I did 11:46:33
4 that. 11:46:35

5 Q. Okay. And so you have an understanding 11:46:36
6 of what's set forth in this paragraph? 11:46:38

7 A. Yes, I hope so. 11:46:43

8 Q. And it's what you -- you applied in -- in 11:46:45
9 giving your opinions in this case? 11:46:48

10 A. In addition to what this says with my 11:46:51
11 skills and experience applied, yes. 11:46:54

12 Q. What's your understanding of the phrase 11:46:58
13 "zone of uncertainty"? 11:46:59

14 A. From my point of view, it's the breadth 11:47:13
15 of uncertainty about what's claimed, especially in 11:47:20
16 light of what's in the written description in the 11:47:33
17 background of the patent. 11:47:36

18 Q. What do you mean the "breadth of 11:47:46
19 uncertainty"? 11:47:48

20 A. Well, I was just trying to use a 11:47:49
21 different word than "zone." I guess the idea there 11:47:53
22 is how broadly uncertain it is or could be based on 11:47:55
23 the context of what else is the patent. 11:48:09

24 Q. That phrase, "zone of uncertainty," did 11:48:13
25 you come up with that or was that from counsel? 11:48:16

1	A. I suspect that may be a legal phrase, so	11:48:19
2	I don't think I invented that.	11:48:22
3	Q. Okay. Do you know if it comes from a	11:48:24
4	case?	11:48:27
5	A. No, I don't know the origin of that.	11:48:32
6	Q. You've said the word "breadth" or "broad"	11:48:34
7	a couple of times. Do you understand that breadth is	11:48:37
8	not indefiniteness?	11:48:42
9	MR. BRIGHT: Objection to form.	11:48:45
10	THE WITNESS: Oh, I do. That wasn't what	11:48:45
11	I was referring to at all.	11:48:48
12	Q. (BY MR. WANG) So you agree that the fact	11:48:49
13	that a claim term is broad does not make it	11:48:51
14	indefinite?	11:48:54
15	MR. BRIGHT: Objection to form.	11:48:56
16	THE WITNESS: It probably depends on the	11:48:58
17	claim term and maybe the rest of the claim or at	11:48:59
18	least that part of the claim term.	11:49:02
19	Q. (BY MR. WANG) So, yeah, I just want to	11:49:07
20	explore your understanding one way or the other.	11:49:09
21	So is it that breadth is indefiniteness	11:49:11
22	or it is not indefiniteness?	11:49:16
23	A. Oh, I don't think I was saying that	11:49:20
24	either way. I was just using it as an example to try	11:49:21
25	to expand on the meaning of the zone of uncertainty	11:49:24

1 that you asked me about, and "zone" to me means an 11:49:28
2 area, not maybe a specific point; and that implies 11:49:32
3 breadth to me, as in not one specific thing. You're 11:49:38
4 giving best effort to try to ascertain it, to attain 11:49:42
5 certainty, and so here we're discussing a zone of 11:49:46
6 uncertainty. 11:49:49

7 Q. Okay. So I'm not asking about 11:49:50
8 uncertainty anymore. I'm just talking about the word 11:49:52
9 "breadth." Do you agree that breadth is not 11:49:54
10 uncertainty -- I -- I'm sorry, breadth is not 11:49:59
11 indefiniteness? 11:50:02

12 MR. BRIGHT: Objection to form. 11:50:04

13 THE WITNESS: Well, unfortunately, that 11:50:08
14 is a pretty broad question. It would depend on the 11:50:10
15 context of the term or the claim to know that for 11:50:13
16 certain or at least certainly for everything. 11:50:17

17 Q. (BY MR. WANG) Okay. So your view is the 11:50:21
18 fact that a claim term is broad, that that alone can 11:50:25
19 make it indefinite? 11:50:28

20 A. No, I don't think I said that. 11:50:30

21 Q. Okay. Do you agree with that or not? 11:50:36

22 A. Can you ask it again, please? 11:50:39

23 Q. The fact that a claim term is broad alone 11:50:40
24 can make it indefinite? 11:50:43

25 A. I think it would depend. 11:50:49

1	Q. So you think it might -- that breadth	11:50:54
2	alone could make something indefinite?	11:50:57
3	A. It is possible, yes.	11:51:00
4	Q. Okay. And then in paragraph 26 you say	11:51:01
5	that "a claim does not provide clear notice of a	11:51:03
6	scope if the claim term may be reasonably interpreted	11:51:10
7	to multiple different methods which provide different	11:51:13
8	results, and the intrinsic evidence offers no	11:51:16
9	guidance regarding which method should be used."	11:51:20
10	Do you see that?	11:51:23
11	A. Yes.	11:51:23
12	Q. And do you agree with that statement?	11:51:24
13	A. Yes, I do.	11:51:26
14	Q. When you say -- refer to "multiple	11:51:29
15	different methods," what about if a claim is a system	11:51:31
16	claim, did you mean to include systems?	11:51:35
17	A. That's a good question. Let me think	11:51:45
18	about that for a moment. It is possible it could	11:51:47
19	apply to some claims as well, yes.	11:51:58
20	Q. Okay. But the point that you're trying	11:52:02
21	to convey here is this idea where -- would you call	11:52:04
22	it ambiguity that a claim term or a method can be two	11:52:13
23	different things and it's not clear which of those	11:52:20
24	two things it refers to?	11:52:26
25	A. I think "ambiguity" is a very good word,	11:52:28

1 and it could mean -- it could be more than just two 11:52:31
2 things. It could be so ambiguous that there are 11:52:35
3 multiple, as I say here, and not just two. 11:52:39
4 Q. Okay. But "multiple" means at least two, 11:52:45
5 right? 11:52:47
6 A. I will agree with that, yes. 11:52:48
7 Q. I'm going to jump around a bit, but 11:53:12
8 first, let me ask you: Do you need a break, 11:53:14
9 Mr. Turnbull (sic), or do you want to keep on going? 11:53:18
10 A. I think I'm fine right now. Maybe 10, 15 11:53:21
11 minutes I'll let you know, but not in the middle of a 11:53:25
12 question. 11:53:27
13 Q. All right. I -- let's just look at the 11:53:27
14 heading of your -- your opinions -- or the terms. 11:53:29
15 So the first term that you opine on is 11:53:32
16 "device agents" at the heading above paragraph 32. 11:53:34
17 Do you see that? 11:53:39
18 A. I do. 11:53:42
19 Q. Okay. Can you tell me what -- based on 11:53:42
20 what we were just talking about, what is ambiguous 11:53:48
21 about this or can you give me the multiple meanings 11:53:51
22 that you were referring to? 11:53:56
23 A. I -- well, I mean, I feel like the burden 11:53:58
24 isn't on me to give the multiple meanings or a 11:54:01
25 meaning, it is the burden on the patent; but as I say 11:54:04

1 here right in paragraph 32, based on what the claim
2 term "device agents" is and what's in the patent, a
3 person of skill could not ascertain the meaning of
4 this term with reasonable certainty. There is just
5 nothing that narrows that down.

6 I also say here that it is just not a
7 commonly known term in the art. I'm not sure I have
8 ever run across it before and the specification
9 doesn't give me enough context to truly determine
10 what that is. I, you know, go into this with a good
11 faith effort at trying to understand what's in the
12 patent, what the patent describes, the system and the
13 methods and looking at claim terms, and "device
14 agent," there is just not enough in the patent that
15 lets me understand what that means with reasonable
16 certainty.

17 Q. Okay. I do understand that's your
18 opinion, and we will get into that at length today,
19 but my -- my first question, I want you to
20 concentrate on my question, Dr. Turnbull.

21 For this term, do you identify multiple
22 meanings and say what they are --

23 MR. BRIGHT: Objection to form.

24 Q. (BY MR. WANG) -- and say they are
25 ambiguous?

11:54:08
11:54:14
11:54:19
11:54:22
11:54:27
11:54:31
11:54:34
11:54:37
11:54:41
11:54:44
11:54:48
11:54:51
11:54:54
11:54:59
11:55:03
11:55:06
11:55:07
11:55:10
11:55:15
11:55:17
11:55:19
11:55:24
11:55:27
11:55:28
11:55:30

1	A. Yeah, I guess that's what this whole	11:55:42
2	section is discussing.	11:55:47
3	Q. Okay. What are the multiple meanings,	11:55:47
4	can you tell me?	11:55:49
5	A. I guess if this answers your question,	11:55:50
6	like I say in paragraph 35, the claim language does	11:55:52
7	not eliminate the meaning of the term "device agent."	11:55:56
8	Claim one recites that a plurality of device agents	11:55:59
9	are communicatively coupled to the service control	11:56:03
10	device link agent through an agent communication bus;	11:56:08
11	that each device agent is identifiable by an	11:56:12
12	associated device agent identifier; and that a	11:56:15
13	particular device agent receives message content	11:56:19
14	delivered by a service control device link agent.	11:56:22
15	These generic operations do not inform	11:56:26
16	the boundaries of a device agent, they leave open the	11:56:30
17	question of whether a device agent adopts the meaning	11:56:34
18	of agent, and if so, how the prefix "device" modifies	11:56:37
19	its meaning.	11:56:41
20	Q. So would you say that the last part is	11:56:42
21	responsive to my question --	11:56:45
22	A. I would say --	11:56:46
23	Q. -- about multiple meanings?	11:56:47
24	A. I would say all of it, if I understood	11:56:49
25	your question currently.	11:56:51

1	Q. So is the issue that you're identifying,	11:56:52
2	that device agent could mean the same thing as agent;	11:56:56
3	that's one possible interpretation?	11:57:00
4	A. That's -- that's possible. As I say	11:57:06
5	here, it leaves open the question of whether device	11:57:09
6	agent adopts the meaning of an agent, and if so, how	11:57:12
7	device as a prefix modifies that meaning, so --	11:57:15
8	Q. And it --	11:57:19
9	A. -- it doesn't mean agent, and then does	11:57:19
10	device modify it in some way?	11:57:22
11	Q. And so another meaning you give is if the	11:57:23
12	prefix "device" modifies the meaning. What you mean	11:57:28
13	by that is narrowed the meaning, right?	11:57:31
14	MR. BRIGHT: Objection to form.	11:57:37
15	THE WITNESS: I think it just gives more	11:57:38
16	specificity. I guess that could be narrowing, but it	11:57:40
17	might be a whole class of a type of agent. Again, we	11:57:45
18	just don't know based on what's in the patent.	11:57:48
19	Q. (BY MR. WANG) And when you say "gives	11:57:51
20	more specificity," that means narrow, right? It has	11:57:53
21	a different meaning?	11:57:57
22	A. I think "narrow" is fine.	11:58:01
23	Q. All right. Let's jump to the -- the next	11:58:04
24	term on top of paragraph 46, above paragraph 56.	11:58:08
25	Do you see the Subsection B, "at least	11:58:16

1	one of the devices" -- no, no. Sorry. Let me -- I	11:58:18
2	jumped too far ahead.	11:58:21
3	All right. Above paragraph 42,	11:58:26
4	Subsection B, "wherein the particular device agent."	11:58:29
5	Do you see that?	11:58:33
6	A. Yes.	11:58:38
7	Q. And for this, do you identify two or more	11:58:43
8	meanings in giving your opinions?	11:58:46
9	MR. BRIGHT: Objection to form.	11:58:51
10	THE WITNESS: No, I just have what is in	11:58:53
11	paragraph 42 an 43 related to that.	11:58:55
12	Q. (BY MR. WANG) Okay. Let's jump to the	11:59:00
13	next term above paragraph 44, "device agents."	11:59:07
14	Do you see that?	11:59:11
15	A. Yes.	11:59:11
16	Q. Do you identify two or more different	11:59:13
17	meanings for this term?	11:59:18
18	MR. BRIGHT: Objection to form.	11:59:19
19	THE WITNESS: Just what I have in	11:59:27
20	paragraphs 44 and 45 is what I discussed here.	11:59:28
21	Q. (BY MR. WANG) Yeah, I don't see anything	11:59:30
22	in these paragraphs about two different meanings or	11:59:32
23	interpretations. Do you -- do you -- can you point	11:59:34
24	me to something?	12:00:05
25	A. Just what I have discussed here.	12:00:07

1	Q. All right. The next term above paragraph	12:00:09
2	46, Section B, beginning with "at least one of the	12:00:16
3	devices," do you see that heading?	12:00:19
4	A. I do.	12:00:22
5	Q. Okay. For this term, and I know it's	12:00:23
6	long, but do you identify multiple meanings or	12:00:28
7	interpretations of it?	12:00:32
8	MR. BRIGHT: Objection to form.	12:00:36
9	THE WITNESS: Just what I have in the	12:00:38
10	following paragraphs, that's my discussion.	12:00:38
11	Q. (BY MR. WANG) Okay. And can you point	12:00:41
12	me to anything in the following paragraphs that's	12:00:43
13	specifically identified as multiple meanings or	12:00:47
14	interpretations of the claim term?	12:00:51
15	A. The body of the paragraphs discuss the	12:00:55
16	difficulties in trying to understand what these terms	12:00:59
17	mean.	12:01:02
18	Q. So I do understand you to be making that	12:01:04
19	opinion, Dr. Turnbull, but again, I would ask you to	12:01:07
20	focus on my question, which is: Do you identify	12:01:10
21	multiple meanings, a Meaning A and a Meaning B, and	12:01:14
22	set forth what they are?	12:01:18
23	A. No, I don't feel like that's my purpose	12:01:19
24	here. My purpose is to point out the ambiguity in	12:01:22
25	the patents, not to help you define your claim terms.	12:01:25

1	I'm saying that the reason I have this entire	12:01:29
2	declaration is these claim terms are not well defined	12:01:32
3	and the scope of them can't be understood by a person	12:01:35
4	of skill with any reasonable certainty.	12:01:39
5	Q. Okay. So thank you, Mr. -- Dr. Turnbull.	12:01:41
6	The same question for the term in the	12:01:47
7	'192 Patent above paragraph 49, do you see that,	12:01:51
8	"software components"?	12:01:54
9	A. Yes.	12:01:58
10	Q. For this term, do you identify multiple	12:02:00
11	meanings or interpretations of this term?	12:02:07
12	MR. BRIGHT: Objection: Form.	12:02:10
13	THE WITNESS: I think I have the same	12:02:11
14	answer, what I have in this section is discussing	12:02:13
15	what the claims suggest and the ambiguity throughout	12:02:17
16	the document and trying to determine what that means.	12:02:21
17	Q. (BY MR. WANG) Okay. Can you point me to	12:02:26
18	multiple meanings or interpretations of this claim	12:02:29
19	term that you set forth in these paragraphs 49	12:02:32
20	through 53?	12:02:40
21	A. They are what they are. They -- they	12:02:41
22	discuss the issues.	12:02:45
23	Q. Okay. And so if I were to say that I	12:02:48
24	don't see multiple meanings being set forth, would	12:02:55
25	you disagree with me?	12:02:58

1	A. I would say that the point of this	12:03:01
2	section and the others is that these claim terms are	12:03:03
3	indefinite; and in good faith, I was trying to	12:03:06
4	determine what they are, and I offer some analysis in	12:03:10
5	my opinion about that, and that's what these sections	12:03:14
6	contain.	12:03:17
7	Q. And do those -- does that good faith	12:03:18
8	analysis or opinions set forth multiple meanings for	12:03:20
9	the claim term?	12:03:23
10	A. No, they set forth the idea that they are	12:03:26
11	so imprecise that you can't ascertain with reasonable	12:03:29
12	certainty and therefore there could be multiple	12:03:35
13	meanings. That's my point.	12:03:37
14	Q. Okay. So for the same question for the	12:03:39
15	next term, B on paragraph 54, this is a longer term	12:03:43
16	begins "wherein one of the message delivery	12:03:50
17	triggers," do you see that?	12:03:53
18	A. I do, on page 15.	12:03:54
19	Q. The same question: Do you set forth	12:03:59
20	multiple meanings or interpretations for this claim	12:04:02
21	term?	12:04:07
22	MR. BRIGHT: Objection to form.	12:04:07
23	THE WITNESS: I would say I have the same	12:04:08
24	answer from the previous one.	12:04:09
25	Q. (BY MR. WANG) And then on the last term,	12:04:10

1	Subsection C, paragraph 56, "Wherein one of the	12:04:17
2	message delivery triggers if the receipt of a	12:04:21
3	particular network element message from one of the	12:04:23
4	network elements," do you see that?	12:04:26
5	A. I do, on page 20.	12:04:27
6	Q. All right. And then do you set forth	12:04:29
7	multiple meanings?	12:04:32
8	A. Again, the same answer.	12:04:35
9	Q. For this one, you do talk about the term	12:04:39
10	"particular" where -- right, where it could be	12:04:41
11	particular by time or in the manner. Do you see	12:04:44
12	that?	12:04:47
13	A. That's right.	12:04:48
14	Q. And would that be a specific example of	12:04:50
15	multiple meanings or interpretations?	12:04:53
16	A. I --	12:04:57
17	MR. BRIGHT: Objection to form.	12:04:58
18	THE WITNESS: I would say it is an	12:04:58
19	example of how unclear the claim term is.	12:05:00
20	Q. (BY MR. WANG) Okay.	12:05:03
21	MR. WANG: All right. Let's go off the	12:05:08
22	record.	12:05:09
23	THE VIDEOGRAPHER: We are going off the	12:05:12
24	record. The time is 12:04 p.m.	12:05:12
25	(Recess taken)	12:05:18

1	THE VIDEOGRAPHER: We are back on the	12:12:39
2	record. The time is 12:12 p.m.	12:12:39
3	Q. (BY MR. WANG) Welcome back, Dr. Turnbull.	12:12:48
4	A. Thank you.	12:12:49
5	Q. Since we were just back from a break, I'm	12:12:52
6	going to go ahead and introduce the patents as	12:12:55
7	exhibits so we have them. So I'm going to send three	12:12:57
8	files, and then I will go through them one at a time,	12:13:02
9	so --	12:13:07
10	(Exhibit 5 marked)	12:13:18
11	Q. (BY MR. WANG) Would you please download	12:13:27
12	them and then open Exhibit 5 to the depo.	12:13:28
13	A. Sure, I will get them all downloaded here	12:13:31
14	first, and then I will open up Exhibit 5.	12:13:35
15	Okay. I have got Exhibit 5 open.	12:13:43
16	Q. Okay. So I'm introducing as Exhibit 5	12:13:45
17	the '733 Patent, which is U.S. Patent 8,406,733. And	12:13:49
18	the first page says "Exhibit 1" because this was the	12:14:02
19	version that was filed with Headwater's complaint,	12:14:05
20	but the document is long, 195 pages.	12:14:10
21	Does this appear to be a true and	12:14:16
22	correct -- true and correct copy of the '733 Patent	12:14:18
23	that you discuss in your declaration, Dr. Turnbull?	12:14:23
24	A. It certainly has the page count and it	12:14:30
25	seems very similar, yes.	12:14:34

1	Q. So, yes, it does appear to be a true and	12:14:42
2	correct copy of the '733 Patent?	12:14:44
3	A. Yes, I will agree to that.	12:14:46
4	(Exhibit 6 marked)	12:14:48
5	Q. (BY MR. WANG) Could you please open up	12:14:48
6	Exhibit 6.	12:14:49
7	A. Okay.	12:14:56
8	MR. WANG: So Exhibit -- I will introduce	12:14:56
9	as Exhibit 6 to Dr. Turnbull's declaration a	12:14:58
10	document. It says "Exhibit 2" on the first page	12:15:03
11	because it was Exhibit 2 to the complaint; and on the	12:15:07
12	second page, it says U.S. Patent Number 9,192,117,	12:15:09
13	and the document is 200 pages.	12:15:15
14	Q. (BY MR. WANG) Does this appear to be a	12:15:23
15	true and correct copy of the '117 Patent that you	12:15:25
16	discuss in your declaration, Dr. Turnbull?	12:15:28
17	A. It looks like it.	12:15:39
18	(Exhibit 7 marked)	12:15:40
19	Q. (BY MR. WANG) And then could you please	12:15:40
20	open Exhibit 7.	12:15:41
21	A. Okay, I have got it open.	12:15:48
22	MR. WANG: I will introduce as Exhibit 7	12:15:49
23	to Dr. Turnbull's declaration a document on the first	12:15:50
24	page says "Exhibit 3" because it was Exhibit 3 to the	12:15:53
25	complaint; and on the second page, it says U.S.	12:15:56

1	Patent Number 9,615,198 -- I'm sorry, strike that.	12:15:59
2	It says Patent Number 9,615,192.	12:16:06
3	Does this appear to be a true and correct	12:16:14
4	copy of the '192 Patent discussed in your	12:16:16
5	declaration, Dr. Turnbull?	12:16:19
6	A. Yes, it looks like it.	12:16:19
7	Q. All right. We can close them, but if you	12:16:25
8	need to refer back to them, just let me know.	12:16:27
9	If we could turn back to your	12:16:32
10	declaration, Dr. Turnbull, could I ask you to turn to	12:16:34
11	paragraph 31.	12:16:38
12	A. Okay. Okay, I'm with you.	12:16:39
13	Q. So here you provide an overview of the	12:16:48
14	specification of the asserted patents, correct?	12:16:50
15	A. Yes.	12:16:53
16	Q. Okay. And in paragraph 31, you discuss	12:16:54
17	Figure 16, and you talk about it disclosing a service	12:17:01
18	processer. Do you see that?	12:17:06
19	A. Yes.	12:17:09
20	Q. Why did you choose to discuss this figure	12:17:11
21	in your overview of the three asserted patents?	12:17:14
22	A. It has some of the claim terms. For one,	12:17:21
23	it seems to portray in this example or this figure	12:17:27
24	many aspects of the claims as well.	12:17:36
25	Q. Which claim terms does it have?	12:17:46

1 A. I think we have "agent" as part of our
2 effort to understand that, and we have ideas relating
3 to "service," whether it is service controller or
4 other service-type things; and then it has some kind
5 of view of the architecture of the claim system.

6 Q. And what does -- the Service Processor
7 100, what does that have to do with the claim terms?

8 A. Oh, exactly what I have here in my
9 report. On page 11 in paragraph 31, "Figure 16
10 discloses a Service Processor 100 that can execute on
11 a mobile device and comprises numerous agents," end
12 quotes. Figure 16 further shows a Service Control
13 Link 1653 between a Service Control Server Link 1638
14 on the Service Controller 122 and a Service Control
15 Device Link 1691 on Service Processor 100.

16 Q. And then you go on to say "The Service
17 Control Link 1653 is described as a control plan
18 communication link that establishes secure
19 bidirectional communications for controlling and
20 monitoring service policies." Right?

21 A. That's right. That's from the patent.

22 Q. And you say "Figure shows multiple
23 agents," and so would -- can you point me to the
24 different agents that the figure shows?

25 A. I may not get all of them because it is a

1 busy figure, but I see a billing agent, a policy 12:19:44
2 control agent, a service monitor agent, an 12:19:50
3 application interface agent, a policy 12:20:00
4 implementation -- implementation agent. And that 12:20:02
5 might be it for this figure. 12:20:12
6 Q. Okay. And then do you see the box that 12:20:19
7 is 1691 Service Control Device Link? 12:20:21
8 A. I see that. 12:20:33
9 Q. Okay. So that doesn't have the word 12:20:34
10 "agent" in it, right? 12:20:35
11 A. No, it's -- 12:20:37
12 Q. Okay. Do you think that can be an agent? 12:20:43
13 MR. BRIGHT: Objection to form. 12:20:49
14 THE WITNESS: I'm not sure. I can just 12:20:55
15 say what you just noted, that it's described as 12:20:57
16 "Service Control Device Link." 12:21:00
17 Q. (BY MR. WANG) And in analyzing the 12:21:06
18 asserted patents, are you -- do you have the 12:21:08
19 understanding that this is not an agent or it can be 12:21:13
20 an agent one way or the other? 12:21:16
21 A. I think the simplest thing to agree on is 12:21:26
22 that it doesn't describe itself as an agent in this 12:21:28
23 figure, it just says "Service Control Device Link." 12:21:31
24 Q. Okay. So do you have any opinions on 12:21:36
25 that one way or the other whether that can be an 12:21:40

1	agent?	12:21:41
2	MR. BRIGHT: Objection to form.	12:21:42
3	THE WITNESS: I think in this figure, I	12:21:53
4	can just take it for what it says, and it doesn't say	12:21:56
5	that's an agent right here. I know we have some	12:21:58
6	other issues about device link agent, but right here,	12:22:01
7	this is just described as Service Control Device Link	12:22:04
8	1691.	12:22:08
9	Q. (BY MR. WANG) And that -- that's all	12:22:11
10	you're comfortable saying, just the fact that the	12:22:12
11	figure -- that the notation of the figure doesn't use	12:22:15
12	the word "agent"?	12:22:19
13	A. That's right.	12:22:21
14	Q. In your opinion, does Figure 16 show an	12:22:27
15	embodiment of all three patents?	12:22:30
16	MR. BRIGHT: Objection to form.	12:22:40
17	THE WITNESS: I would say no. It is	12:22:41
18	simply this figure with a very long patent written	12:22:42
19	description. I think I chose it here because, as I	12:22:48
20	said, it has many of the terms that we're discussing	12:22:50
21	in my declaration.	12:22:55
22	Q. (BY MR. WANG) Okay. Let's turn to your	12:23:10
23	opinions for the first term, "device agent." All	12:23:12
24	right, sir, and paragraph 33. Oh, I think it starts	12:23:25
25	at paragraph 32.	12:23:28

1	A. I'm with you.	12:23:30
2	Q. Okay. So you agree that the term "agent"	12:23:31
3	is commonly known in the art?	12:23:36
4	A. It is. And then even within that, there	12:23:41
5	are different definitions, as I have in my	12:23:43
6	declaration here, of what "agent" might mean.	12:23:48
7	Q. And so the term "agent" has a plain and	12:23:52
8	ordinary meaning?	12:23:55
9	A. I think so, yes, especially based on the	12:24:01
10	context of the body of the patent, yes.	12:24:03
11	Q. Okay. And here you -- you say that "in	12:24:06
12	the context of a computer network agent means	12:24:11
13	software that performs certain functions on behalf of	12:24:14
14	another element."	12:24:19
15	Do you see that in paragraph 33?	12:24:21
16	A. Yes, I'm with you.	12:24:22
17	Q. And then so you agree with that statement	12:24:27
18	that I just read?	12:24:29
19	A. Yeah, that's from the dictionary	12:24:31
20	definition.	12:24:33
21	Q. And then from that you cite I think three	12:24:34
22	dictionary definitions?	12:24:38
23	A. That's right.	12:24:40
24	Q. Let me -- let me introduce -- let me	12:24:45
25	introduce one of them. Bear with me for one second.	12:24:57

1	(Exhibit 8 marked)	12:25:15
2	Q. (BY MR. WANG) I will introduce as	12:25:28
3	Exhibit 8 -- could you please download Exhibit 8.	12:25:30
4	A. I have got it open, Exhibit 8.	12:26:02
5	Q. Okay. So I'm introducing as Exhibit 8 a	12:26:03
6	three-page document entitled "Dictionary of Computer	12:26:07
7	and Internet Terms," and it bears the Bates number	12:26:13
8	SAM-HW-2_00215498 through 500.	12:26:16
9	Do you see that?	12:26:28
10	A. I do.	12:26:32
11	Q. Does this appear to be a true and correct	12:26:36
12	copy of the excerpt from this "Dictionary of Computer	12:26:45
13	and Internet Terms" that you relied on?	12:26:48
14	A. It looks like it is the same page, yes.	12:26:51
15	Q. Okay. And this is the third definition	12:26:53
16	that you rely on in paragraph 33, right?	12:26:58
17	A. That's right.	12:27:01
18	Q. Could you read the definition of "agent"	12:27:04
19	in this Exhibit 8.	12:27:07
20	A. Okay. "A piece of software that performs	12:27:14
21	a service for someone, usually silently and	12:27:17
22	automatically. For example, an agent might run on a	12:27:20
23	client computer to keep the server informed of its	12:27:23
24	needs."	12:27:27
25	Q. Thank you. And so that's consistent with	12:27:28

1	your statement in paragraph 33 that "agent" means	12:27:34
2	software that performs certain functions on behalf of	12:27:39
3	another element?	12:27:43
4	A. Performs a service for someone, yes.	12:27:44
5	Q. Okay. And is that what you meant by this	12:27:47
6	sentence when you say "software that performs a	12:28:00
7	certain function"? So a service would be an example	12:28:03
8	of a function?	12:28:06
9	A. Yes.	12:28:07
10	Q. And that is the plain and ordinary	12:28:13
11	meaning of "agent" in the context of the asserted	12:28:15
12	patents as well?	12:28:18
13	MR. BRIGHT: Objection to form.	12:28:19
14	THE WITNESS: I would say all three	12:28:20
15	definitions give you the picture of a plain and	12:28:22
16	ordinary meaning. I think that's why I have three in	12:28:28
17	here.	12:28:32
18	Q. (BY MR. WANG) Okay. And your opinion	12:28:33
19	here is given from the time frame of 2008/2009, I	12:28:38
20	believe you testified before.	12:28:43
21	Has the meaning of the word "agent"	12:28:47
22	changed since then to today, for example?	12:28:49
23	MR. BRIGHT: Objection to form.	12:28:57
24	THE WITNESS: It's possible there could	12:28:58
25	be other definitions since then. That was quite a	12:28:59

1 while ago, but the context of the patent and the 12:29:05
2 priority dates that we mentioned, these dictionaries 12:29:12
3 seemed to help define it and give us our plain and 12:29:19
4 ordinary meaning. 12:29:22

5 Q. (BY MR. WANG) Okay. I know that when 12:29:24
6 we're looking at claim construction, we are looking 12:29:25
7 at it from the time of the invention, but I would 12:29:28
8 like to know if just if the meaning of this word has 12:29:34
9 changed to today. 12:29:40

10 Are you aware of, you know, a different 12:29:42
11 meaning, if we're looking at it today, for example? 12:29:44

12 MR. BRIGHT: Objection to form. 12:29:49

13 THE WITNESS: I would say nothing comes 12:29:55
14 to mind specifically in terms of meaning. I bet many 12:29:56
15 years later there are probably, you know, different 12:30:00
16 examples of what might -- people might use for 12:30:02
17 "agents," that would be one addition. 12:30:05

18 Q. (BY MR. WANG) Okay. If we just look at 12:30:18
19 the word "device" by itself in isolation, does that 12:30:22
20 have a commonly understood meaning in the art? 12:30:28

21 A. I think you would have to have the 12:30:33
22 context of what kind of system or method or systems 12:30:35
23 and methods to understand what you meant by "device." 12:30:39

24 Q. But would the word "device" itself have a 12:30:50
25 plain and ordinary meaning? 12:30:53

1 A. I would say so. Again, I would have to
2 think about it in the context of what's described in
3 the patent for the plain and ordinary meaning based
4 on what's in the patent.

5 Q. Have you -- have you considered that,
6 what the plain and ordinary meaning of just the word
7 "device" is in the patent?

8 A. I guess a little bit but nothing
9 specifically, because if I had, I probably would have
10 included that in my report.

11 Q. Would it be an end user device?

12 MR. BRIGHT: Objection to form.

13 THE WITNESS: I think that's possible. I
14 don't know if that's what I would say it is
15 specifically.

16 Q. (BY MR. WANG) So I understand the claim
17 term is "device agents," but since you gave the
18 opinion that "agent" has a plain and ordinary
19 meaning, if the claim term had recited just "agent"
20 and not "device agent" in that hypothetical, do you
21 have any opinions about indefiniteness?

22 MR. BRIGHT: Objection to form.

23 THE WITNESS: That is probably too big of
24 a hypothetical to give you an answer here in
25 realtime. I would have to go back and think about

1	that and see all the examples where "device agent" or	12:32:44
2	even "agent" are mentioned to be able to answer that.	12:32:52
3	Q. (BY MR. WANG) Okay. But you did not	12:33:00
4	think about that hypothetical, if you will, if the	12:33:01
5	claim had recited "agent" instead of "device agent"?	12:33:06
6	A. I don't recall doing that.	12:33:10
7	Q. Okay. And sitting here, you don't have	12:33:11
8	an opinion that that would be indefinite, that the	12:33:14
9	claim would be indefinite if so written?	12:33:22
10	A. Sitting here, I haven't thought through	12:33:25
11	that, no.	12:33:27
12	Q. Okay. Let's turn to your opinion in	12:33:28
13	paragraph 34 of your declaration.	12:33:43
14	A. Okay.	12:33:47
15	Q. Okay. So in paragraph 34 you say that "a	12:33:48
16	'device agent' is not a known term in the art, and it	12:33:58
17	is unclear how adding the prefix 'device' affects its	12:34:01
18	scope relative to the term 'agent'," correct?	12:34:05
19	A. Yes, I think that is a good summary of	12:34:08
20	what we were just discussing, in fact.	12:34:11
21	Q. And you're giving this opinion as of	12:34:12
22	2008/2009 that a "device agent" is not known in the	12:34:15
23	art?	12:34:20
24	A. I would say, yes, at least that.	12:34:23
25	Q. Okay. And is that true up until today,	12:34:25

1	that in 2024, that device term -- "device agent" is	12:34:31
2	not -- is not known in the art, that term?	12:34:38
3	MR. BRIGHT: Objection to form.	12:34:43
4	THE WITNESS: Nothing comes to mind more	12:34:45
5	currently. I don't really look at it from that	12:34:48
6	perspective, but just sitting here today, it still	12:34:51
7	doesn't seem to be a term that I have ever read	12:34:55
8	before and not known in the art.	12:34:58
9	Q. (BY MR. WANG) You don't cite any evidence	12:35:15
10	in paragraph 34, do you, for your statement that a	12:35:16
11	"device agent" is not known in the art, correct?	12:35:19
12	A. I would say with this paragraph and many	12:35:26
13	others, the evidence is really my own skills and	12:35:29
14	experience of someone that's been doing this type of	12:35:33
15	work, and it is not a term that I have seen before in	12:35:36
16	the art, really anything that I have ever read.	12:35:39
17	So, just like I say here, based on my	12:35:41
18	skills and experience, you just don't know what	12:35:44
19	adding a device does to add to the scope relative to	12:35:47
20	the term "agent."	12:35:52
21	Q. Okay. So to answer my question, you	12:35:53
22	don't cite any evidence in paragraph 34 and you're	12:35:56
23	making the statement just based -- based on your	12:36:03
24	experience and background; is that correct?	12:36:06
25	A. Well, as well as analyzing the patent	12:36:09

1	itself.	12:36:12
2	Q. Okay. Anything else that you're relying	12:36:13
3	upon for that?	12:36:18
4	A. Well, we couldn't find it in any	12:36:21
5	dictionary. That's why I started out with using	12:36:23
6	"agent," but I would say my skills and experience are	12:36:26
7	the main thing that drives this opinion.	12:36:29
8	Q. Okay. And the same thing about the rest	12:36:31
9	of your declaration, do you -- it's -- may not be	12:36:35
10	cited in this paragraph, but do you recall any other	12:36:39
11	citations to evidence for your opinion that a device	12:36:42
12	agent is not -- is not known in the art cited	12:36:47
13	elsewhere in your declaration?	12:36:51
14	A. No, I don't think I have anything else	12:36:54
15	about that in my declaration.	12:36:56
16	Q. Are you aware of Samsung documents that	12:37:19
17	use the term "device agent"?	12:37:22
18	A. Nothing comes to mind right now.	12:37:29
19	Q. Are you aware of any Samsung patents or	12:37:36
20	patent applications that use the term "device agent"?	12:37:39
21	A. I don't think so. Nothing comes to mind.	12:37:43
22	Q. Are you aware of any prior art cited in	12:37:48
23	the asserted patents that use the term "device	12:37:52
24	agent"?	12:37:55
25	A. You mean like the cited references that	12:37:58

1	we see on the --	12:38:01
2	Q. Yes.	12:38:03
3	A. -- second and third and fourth page?	12:38:03
4	Q. Yes.	12:38:06
5	A. No, no, nothing comes to mind.	12:38:07
6	Q. Give me one minute here. Okay. Can you	12:38:32
7	open the '733 Patent.	12:38:42
8	A. Sure. That's Exhibit 5 for us?	12:38:46
9	Q. I believe so.	12:38:49
10	A. Okay. I have got it open.	12:38:51
11	Q. Okay. Can I turn your attention to page	12:38:54
12	three of the patent and -- or page four of the PDF	12:39:03
13	that -- that has a long list of references cited.	12:39:11
14	A. Okay, I'm with you.	12:39:18
15	Q. Okay. And before that I should ask you	12:39:20
16	to turn to page two of the patent where it says "U.S.	12:39:26
17	Patent Documents."	12:39:29
18	Do you see that?	12:39:31
19	A. I do see that title.	12:39:32
20	Q. Is that -- yeah. Do you understand the	12:39:35
21	following that to be a list of U.S. Patents or patent	12:39:37
22	applications that are listed on the face of the '733	12:39:41
23	Patent?	12:39:44
24	A. Yes.	12:39:49
25	Q. Okay. So turning back to page three, do	12:39:50

1	you see on the right column about right in the middle	12:39:53
2	there is a reference named Maes, M-A-E-S?	12:40:00
3	A. I do. I think I know the author.	12:40:05
4	Q. Okay. Who is the author?	12:40:08
5	A. I would guess it is Patti Maes. She was	12:40:10
6	at the MIT media lab then.	12:40:13
7	Q. Okay. I don't think it's Patti, but let	12:40:16
8	me -- let me show you the patent.	12:40:22
9	A. Okay.	12:40:24
10	Q. Because I am curious to find out, now	12:40:25
11	that you have peaked my interest. So let me send	12:40:27
12	that in the Zoom. Oh, I'm sorry, let me rename it to	12:40:29
13	be the right exhibit number and I will resend. It	12:40:47
14	will be the same document but it will just have the	12:40:49
15	exhibit number.	12:40:53
16	(Exhibit 9 marked)	12:40:53
17	Q. (BY MR. WANG) Can you open -- can you	12:40:53
18	download and open this, please?	12:41:04
19	A. Yeah, I just downloaded it with the	12:41:07
20	Exhibit 9 notice. Oh, it's not, it's a different	12:41:09
21	Maes. Or "Maes" I think is how she might say her	12:41:14
22	name.	12:41:17
23	Q. Okay. So I am introducing as Exhibit 9 a	12:41:17
24	U.S. Patent application publication with the	12:41:20
25	Publication Number U.S. 2006/0218395 A1. Did I read	12:41:23

1	that correctly on the first page?	12:41:35
2	A. I think so. And that's just our	12:41:38
3	Exhibit 9 today.	12:41:40
4	Q. Yes. And could I ask you to compare this	12:41:41
5	to the '733 Patent, what we were looking at with the	12:41:48
6	Maes. Does that seem to be the same number?	12:41:52
7	A. It looks like the same number.	12:42:01
8	Q. The same number ending in 395, right?	12:42:04
9	A. That's right, an application.	12:42:07
10	Q. And have you -- have you seen this	12:42:11
11	Exhibit 9 before?	12:42:15
12	A. It does not ring a bell.	12:42:19
13	Q. And do you know the author, Stephanie H.	12:42:21
14	Maes?	12:42:25
15	A. No, I don't know that author.	12:42:26
16	Q. Do you see that the patent is assigned to	12:42:29
17	Oracle International Corporation in Redwood Shores?	12:42:34
18	A. I do. I know exactly where they're at.	12:42:40
19	Q. And that's the same Oracle we all know,	12:42:43
20	right?	12:42:46
21	A. Yes, I would assume so.	12:42:46
22	Q. Okay. And then do you see the date of	12:42:50
23	this patent public -- patent application publication?	12:42:54
24	It says it was filed September 19th, 2005, right?	12:42:59
25	A. Oh, I do, in the first column --	12:43:05

1	Q. Yes.	12:43:08
2	A. -- I see that.	12:43:08
3	Q. And then it says it is a continuation, in	12:43:09
4	part, of an application that was filed on -- in	12:43:11
5	March 23rd, 2005.	12:43:15
6	A. I see that as well.	12:43:21
7	Q. Can you read the title of the patent.	12:43:25
8	A. It is called "Device Agent."	12:43:28
9	Q. And then can you read the abstract?	12:43:31
10	A. Oh, you want me to read it out loud?	12:43:41
11	Q. Yes.	12:43:43
12	A. I was just reading it myself.	12:43:44
13	"Device agents and methods are disclosed.	12:43:46
14	In one embodiment, the method comprises monitoring,	12:43:49
15	at an access device, at least a subset of device	12:43:52
16	activity. The method further comprises the detecting	12:43:57
17	an activity satisfies at least one condition	12:44:01
18	specified by a policy and executing at least one	12:44:10
19	action in the policy associated with the satisfied	12:44:14
20	condition."	12:44:18
21	Q. Thank you Dr. Turnbull. Let me turn your	12:44:26
22	attention to paragraph five.	12:44:28
23	A. Okay, I see the middle sentence there. I	12:44:34
24	don't want to get hung up on it, it may not affect	12:44:36
25	us, but it seems like something is grammatically	12:44:40

1	wrong with the second sentence in the abstract.	12:44:44
2	Q. I see that, but I don't have -- have	12:44:48
3	anything to offer about that.	12:44:51
4	A. Okay, I'm sorry, you said to jump to	12:44:52
5	someplace else?	12:44:55
6	Q. Yeah, to paragraph five, please.	12:44:56
7	A. Okay. Okay.	12:44:58
8	Q. Okay. So paragraph five -- and I will	12:45:07
9	just read the beginning of it -- it says "Device	12:45:09
10	agents and methods are disclosed. In some	12:45:12
11	embodiments, the method comprises monitoring, at an	12:45:14
12	access device, (e.g., a wireless device, such as a	12:45:16
13	mobile telephone), at least a subset of device	12:45:21
14	activity. An activity that satisfies at least one	12:45:24
15	policy condition is detected."	12:45:27
16	Do you see that?	12:45:30
17	A. I do.	12:45:31
18	Q. And then let me turn your attention to	12:45:33
19	paragraph 29 on page 11.	12:45:38
20	So it says, "As will be described in	12:45:46
21	further detail below with reference to Figure 2,	12:45:49
22	wireless devices 104, 106, 108 may each include a	12:45:52
23	device agent (not illustrated). Device agents may be	12:45:56
24	used to enforce policies on device activities."	12:46:00
25	"By way of example, policies may be	12:46:04

1 enforced on communications transmitted from and/or
2 received by wireless devices 104, 106, 108, data
3 usage, websites accessed by the access device,
4 software installations, configuration activity,
5 and/or any other type of device activity."

12:46:06

12:46:10

12:46:16

12:46:18

12:46:21

6 Do you see that?

12:46:27

7 A. I do.

12:46:27

8 Q. This patent application publication is in
9 the same field as the asserted patents, right?

12:46:36

12:46:38

10 MR. BRIGHT: Objection to form.

12:46:46

11 THE WITNESS: It could be. Without
12 looking at it, it is hard to say specifically.

12:46:46

12:46:47

13 Q. (BY MR. WANG) All right. But it's cited
14 on the face of the '733 Patent, right?

12:46:49

12:46:51

15 A. Yes. Yes.

12:46:55

16 Q. Have you seen anything in this Exhibit 9
17 that suggests it's not in the same field or in a
18 different field?

12:47:02

12:47:05

12:47:08

19 A. For seeing it for the first time, I just
20 can't say without more of a review.

12:47:13

12:47:15

21 Q. Okay. But, for example, based on the
22 first page or what we have looked at -- and I know we
23 have only looked at parts -- do you have any reason
24 to believe it is in a different field or an unrelated
25 field?

12:47:19

12:47:23

12:47:27

12:47:32

12:47:36

1 A. I just couldn't say until I have looked
2 at the whole thing.

3 Q. Okay. But the parts that we have looked
4 at, or the first page, do you see anything in it that
5 suggests it's in a different field?

6 A. I just can't say. I also don't really
7 know what you mean by "field." I don't know if
8 you're referring to the patent code designations or
9 something else.

10 Q. No, I'm using "field" in the same way
11 that you used when you were talking about the level
12 of ordinary skill for the asserted patents.

13 A. Okay. If you'll ask that question again,
14 then that will help me out.

15 Q. Sure. Based on the parts of Exhibit 9
16 that we have looked at, including the first page and
17 the parts that we read, do you see anything therein
18 that suggests Exhibit 9, this patent application
19 publication, is in a different field from the
20 asserted patents?

21 A. Just the little bit that we have looked
22 at gives me indication they're both describing, I
23 guess, software. I will agree to that.

24 Q. Okay. So is the answer to my question
25 "no"?

1	A. I just can't give you an answer without	12:49:16
2	really looking at the rest of it. Even, for example,	12:49:18
3	you know, paragraph 29 is pretty broad, and even just	12:49:20
4	to look at that, it's clearly, you know, including	12:49:23
5	information at least 28 more paragraphs above that.	12:49:26
6	And then the last sentence essentially	12:49:29
7	says "and/or any other type of device activity,"	12:49:31
8	that's so broad, again, without context or reviewing	12:49:35
9	it, I really can't say.	12:49:39
10	Q. Okay. Can you look at Figure 2 of this	12:49:42
11	Exhibit 9?	12:49:51
12	A. Okay, that's what paragraph 29 is	12:49:51
13	referencing, right?	12:49:54
14	Q. Right.	12:49:55
15	A. I see it.	12:49:56
16	Q. Okay. Do you see -- do you see this	12:49:56
17	figure and it has a component that's designated with	12:50:02
18	the numeral "204 device agent"?	12:50:07
19	A. I do.	12:50:10
20	Q. Okay. And this shows this device agent	12:50:11
21	within the device, right?	12:50:17
22	A. I'm not sure. To be honest, looking at	12:50:19
23	this for the first time, this doesn't seem to be what	12:50:25
24	I originally thought they meant by "device agent."	12:50:30
25	This is kind of an odd figure. What's inside, I	12:50:34

1 guess what we have defined as Box 200, has several 12:50:39
2 different keywords that have different numbers 12:50:45
3 associated with them and they all seemed somewhat 12:50:53
4 different technically. We have, you know, broader 12:50:56
5 things and then protocols. I would say this figure 12:50:59
6 makes my work less helpful, even based on looking at 12:51:05
7 paragraph 29. 12:51:09

8 Q. Okay. And then -- but I'm asking about 12:51:10
9 the device agent, it is identified with a numeral 12:51:12
10 "204," right? 12:51:15

11 A. I do see that, I will agree with you 12:51:17
12 there. 12:51:19

13 Q. And do you see the bidirectional arrow to 12:51:19
14 an access provider in this figure? 12:51:22

15 A. I do. I will be honest with you, I don't 12:51:25
16 really know what it means. 12:51:28

17 Q. Okay. Let's return back to your 12:51:37
18 declaration and talk about your paragraph 34. 12:51:39

19 A. Sure. 12:51:50

20 Q. So, in paragraph 34, you say, "Device 12:51:54
21 agent is not known and is unclear how adding the 12:51:57
22 prefix 'device' affects its scope relative to the 12:52:00
23 term 'agent'." 12:52:04

24 Do you see that? 12:52:05

25 A. Yes. 12:52:05

1 Q. I think we talked about before how adding 12:52:08
2 a -- first, do you agree that the word "device" 12:52:11
3 modified "agent"? 12:52:16

4 A. It could, yes. 12:52:18

5 Q. What possibilities are there apart from 12:52:29
6 modifying "agent"? 12:52:31

7 A. That's just a giant hypothetical in the 12:52:32
8 world of all the vocabulary words that are out there. 12:52:36
9 It would depend on the context. 12:52:40

10 Q. Okay. Can you give me an example of what 12:52:49
11 that would be? 12:52:51

12 A. No. That's just a hypothetical so broad 12:52:52
13 that I can't even begin to try to do that, certainly 12:52:55
14 not in realtime sitting here today. 12:52:59

15 Q. Okay. So I asked you if it modifies it. 12:53:00
16 So you said "it could." So that suggests it might 12:53:04
17 not? 12:53:07

18 A. That's right, it is unknown. That's -- 12:53:08

19 Q. Okay. So what would it be if it wasn't 12:53:10
20 modifying it? 12:53:14

21 A. I just can't tell you sitting here today. 12:53:16
22 That is just too broad of a question. 12:53:19

23 Q. Okay. I think we discussed before that a 12:53:22
24 device agent is narrower than just the scope is 12:53:24
25 narrower than just "agent." Do you agree with that? 12:53:28

1	A. I think that's very possible. When --	12:53:31
2	when you're adding modifying words to something, you	12:53:34
3	would hope you're narrowing it. It's hard to say	12:53:37
4	that universally.	12:53:41
5	Q. Okay. And then let's continue with your	12:53:42
6	declaration. On page 37 --	12:54:11
7	A. Paragraph 37?	12:54:24
8	Q. Yes. I'm sorry, let's go to paragraph	12:54:33
9	35. That's what I meant to ask about.	12:54:43
10	So we -- you highlighted this paragraph	12:54:46
11	and we were talking about the first term, and then	12:54:48
12	particularly the last sentence where you say, talking	12:54:51
13	about the specification, "they leave open the	12:54:54
14	question whether of 'device agent' adopts the meaning	12:54:58
15	of 'agent,' and if so, how the prefix 'device'	12:55:01
16	modifies its meaning."	12:55:04
17	Do you see that?	12:55:06
18	A. I do.	12:55:06
19	Q. And so here you seem to be agreeing that	12:55:07
20	"device" is a modifier for "agent"?	12:55:11
21	A. I say it leaves open the question. It is	12:55:14
22	one possibility, yes.	12:55:16
23	Q. Well, the very last part you say "how the	12:55:23
24	prefix device modifies its meaning." So you seem to	12:55:26
25	be saying that it is modifying its meaning, you're	12:55:30

1	just not sure how it does so?	12:55:35
2	A. And I say, if so, how the prefix device	12:55:37
3	modifies its meaning. So we just don't have enough	12:55:40
4	information. This is one idea that I had that leaves	12:55:45
5	open this question.	12:55:47
6	Q. Okay. And so then the -- the ambiguity	12:55:48
7	that you're concerned about is whether "device agent"	12:55:53
8	means exactly the same thing as "agent" or if it's	12:55:57
9	something else that's narrower; is that fair?	12:56:01
10	A. Yeah, if it adopts, I guess, the plain	12:56:05
11	and ordinary meaning or some of the dictionary	12:56:08
12	definitions.	12:56:11
13	Q. Or if it was something else that was	12:56:16
14	narrower than those definitions, right?	12:56:18
15	A. Yes.	12:56:20
16	Q. All right. And so if there were like a	12:56:21
17	narrower understanding of "device agent" that was put	12:56:24
18	forth, that would resolve the ambiguity, right?	12:56:29
19	MR. BRIGHT: Objection to form.	12:56:37
20	THE WITNESS: I guess it would depend on	12:56:37
21	where that comes from. If we're looking at what's in	12:56:39
22	the patent specification, there is just nothing else	12:56:43
23	in there, as I think I made the point several times	12:56:45
24	today, and it is also in my declaration here.	12:56:48
25	Q. (BY MR. WANG) Okay. And you don't	12:56:51

1	purport to give or propose a specific meaning or	12:56:53
2	understanding of "device agent" or multiple such	12:57:01
3	meanings, right?	12:57:06
4	A. No. Just like I say here, it leaves open	12:57:07
5	the question of what "device agent" might mean.	12:57:09
6	Q. Let's turn to page 15 of your	12:57:21
7	declaration. I think this is within paragraph 39.	12:57:35
8	A. Okay.	12:57:41
9	Q. Okay. And so in yellow, you highlight	12:57:41
10	every item in the figure that has the word "agent,"	12:57:47
11	correct?	12:57:52
12	A. Yes, I think we kind of walked through	12:57:54
13	that before when you were asking me that.	12:57:57
14	Q. And there are no other items identified	12:58:00
15	as "agent" in the figure, apart from what you've	12:58:04
16	highlighted in yellow in Figure 16?	12:58:09
17	A. I don't think so, no.	12:58:12
18	Q. And then all of these items highlighted	12:58:19
19	in yellow are within a bigger box with the numeral	12:58:21
20	100. Do you see that?	12:58:31
21	A. Yes.	12:58:33
22	Q. And that's identified as "the internal	12:58:33
23	functional diagram of device."	12:58:35
24	Do you see that?	12:58:38
25	A. I do.	12:58:38

1	MR. BRIGHT: Objection to form.	12:58:39
2	Q. (BY MR. WANG) And so would that inform	12:58:39
3	then the meaning of "agent"?	12:58:45
4	A. Possibly. I guess we're just back to if	12:58:53
5	they meant "agent," they should have just said	12:58:56
6	"agent," and if they wanted to define a "device	12:58:58
7	agent," they should have done a better job of doing	12:59:02
8	that. It is just there is nothing in there that	12:59:04
9	tells a person of skill what the scope of "device	12:59:06
10	agent" is.	12:59:09
11	Q. And you don't mention this identification	12:59:09
12	at the top, right, that says "internal functional	12:59:13
13	diagram of device"? I don't recall that in your	12:59:16
14	declaration.	12:59:18
15	A. No, that wasn't a goal of mine to	12:59:19
16	describe everything in every figure.	12:59:23
17	Q. Okay. You also mention -- in these	12:59:24
18	paragraphs you mention Headwater's infringement	12:59:34
19	contentions. Do you see that?	12:59:38
20	A. Headwater's interpretation, is that what	12:59:39
21	you mean?	12:59:42
22	Q. I think you also mention Headwater's	12:59:44
23	infringement contentions, like in paragraph 38.	12:59:47
24	A. That's certainly possible.	12:59:50
25	Q. And this came up before, but I believe	12:59:51

1	that you said that you didn't recall if you had	13:00:00
2	reviewed the infringement contentions.	13:00:04
3	Does this refresh your recollection or	13:00:08
4	change your answer one way or the other?	13:00:13
5	A. Yeah, I think this fits into the -- I	13:00:17
6	looked at some of the documents that had the court	13:00:20
7	formatting with some tables in it and I think that's	13:00:22
8	what that is referring to here.	13:00:26
9	Q. Did you review the contentions yourself	13:00:28
10	or did you discuss with counsel and form an	13:00:31
11	understanding from counsel about the infringement	13:00:34
12	contentions?	13:00:37
13	A. I would say it is safe to say I did both	13:00:39
14	of those.	13:00:41
15	Q. Okay.	13:00:42
16	MR. BRIGHT: And, Counsel --	13:00:49
17	MR. WANG: I'm sorry, what was that?	13:00:50
18	THE VIDEOGRAPHER: Apologies, Counsel,	13:00:52
19	just a heads up, we have five to ten before a media	13:00:55
20	change is needed.	13:00:58
21	MR. WANG: Okay. Maybe we will go for	13:00:58
22	five more minutes.	13:01:00
23	Q. (BY MR. WANG) Do you know when	13:01:01
24	Headwater's infringement contentions were served?	13:01:03
25	A. No, I wouldn't even try to memorize that	13:01:05

1	because I know I could look it up.	13:01:08
2	Q. Do you know if that would be within the	13:01:11
3	past year, for example?	13:01:12
4	A. That seems likely.	13:01:15
5	Q. Okay. You didn't rely on the	13:01:18
6	infringement contentions as extrinsic evidence, do	13:01:33
7	you?	13:01:37
8	A. I guess it's extrinsic and it is	13:01:37
9	something I looked at, so it is something I	13:01:40
10	considered.	13:01:42
11	Q. Okay. You would agree that a person of	13:01:43
12	skill reading the patent, you know, at the time of	13:01:50
13	the invention would not consider Headwater's	13:01:52
14	infringement contentions?	13:01:57
15	A. I don't know if they would have access to	13:02:00
16	that, so probably not.	13:02:02
17	Q. And it would be 15 years before they	13:02:03
18	existed, right?	13:02:10
19	A. In that case, yes.	13:02:14
20	Q. Do you agree that -- what you've	13:02:28
21	highlighted in Figure 16 that we looked at before, do	13:02:29
22	you agree that's what's highlighted in yellow are	13:02:35
23	device agents?	13:02:39
24	A. No, they're just simply described as	13:02:40
25	different types of agents.	13:02:42

1	Q. Okay. But I think in your opinions, you	13:02:45
2	say that -- at least you acknowledged that they could	13:02:47
3	be considered device agents, in paragraph 40, for	13:02:51
4	example?	13:02:55
5	MR. BRIGHT: Objection to form.	13:02:59
6	THE WITNESS: It's possible.	13:03:07
7	Q. (BY MR. WANG) Okay. You agree that a	13:03:08
8	person of skill would not read the claims in light of	13:03:13
9	Headwater's infringement contentions to understand	13:03:18
10	whether the claims -- whether the person of skill	13:03:21
11	could ascertain the meaning of the claims with	13:03:24
12	reasonable certainty, correct?	13:03:27
13	A. I think that was too long of a sentence	13:03:32
14	for me, so I don't --	13:03:34
15	Q. A person -- a POSITA would not read the	13:03:37
16	claims in light of Headwater's infringement	13:03:42
17	contentions to understand whether he or she could	13:03:45
18	ascertain the meaning of claim with reasonable	13:03:48
19	certainty, correct?	13:03:50
20	A. Yeah, I don't know if they would help.	13:03:52
21	MR. WANG: All right. Let's go off the	13:03:56
22	record.	13:03:57
23	THE VIDEOGRAPHER: We are going off the	13:04:00
24	record. The time is 1:03 p.m.	13:04:01
25	(Recess taken)	13:09:02

1	THE VIDEOGRAPHER: We are back on the	13:11:15
2	record. The time is 11:10 p.m.	13:11:15
3	Q. (BY MR. WANG) Welcome back,	13:11:18
4	Dr. Turnbull.	13:11:24
5	A. Hey, thank you.	13:11:24
6	Q. In paragraph 38 of your declaration, you	13:11:25
7	provide a copy of Figure 29. Do you see that?	13:11:28
8	A. That's right.	13:11:33
9	Q. And in Figure 29, you -- you also	13:11:35
10	identify several elements in yellow, correct?	13:11:39
11	A. That's right.	13:11:47
12	Q. And those are agents?	13:11:47
13	A. That's right. That's my highlighting, of	13:11:48
14	course, not in the patent itself.	13:11:50
15	Q. And are all of these agents on the device	13:11:53
16	in Figure 29?	13:11:57
17	MR. BRIGHT: Objection to form.	13:12:04
18	THE WITNESS: I am not sure. I would	13:12:05
19	have to look at where it's described in the patent to	13:12:08
20	be sure of that.	13:12:13
21	Q. (BY MR. WANG) What's Figure 29	13:12:20
22	disclosing?	13:12:21
23	A. I guess broadly some of the functionality	13:12:27
24	of the system proposed.	13:12:29
25	Q. Can you be more specific on that?	13:12:32

1 A. Not without looking at what it says for 13:12:34
2 Figure 29 in the patent itself. 13:12:40

3 Q. Okay. But just looking at your 13:12:42
4 declaration and your opinions in paragraph 38, you 13:12:44
5 don't recall what Figure 29 is showing? 13:12:47

6 A. No, just simply what I have described 13:12:51
7 here. Like I say, Figure 29 illustrates various 13:12:54
8 "agents," quote, as yellow, separately from the 13:13:01
9 "apps", quote, in blue. 13:13:06

10 Q. Do you have the opinion that any of the 13:13:13
11 agents that you highlight in yellow are not on the 13:13:15
12 device? 13:13:17

13 MR. BRIGHT: Objection to form. 13:13:20

14 THE WITNESS: I don't recall looking at 13:13:24
15 this right here today. 13:13:25

16 Q. (BY MR. WANG) Do you know how Figure 29 13:13:42
17 relates to Figure 16? 13:13:44

18 A. Oh, not specifically. Off the top of my 13:13:49
19 head, no. There are just too many figures. 13:13:51

20 Q. Okay. If you want to turn to the '733 13:14:02
21 Patent -- 13:14:04

22 A. Okay. 13:14:09

23 Q. -- which I think was Exhibit -- 13:14:10
24 Exhibit 5. 13:14:22

25 A. Okay. I have got it open. 13:14:23

1	Q. Okay. If you want to look at the	13:14:26
2	description of Figure 29 and a description. Let me	13:14:31
3	point you to that.	13:14:43
4	A. Okay.	13:14:44
5	Q. It is on page 114 of the patent --	13:14:50
6	A. Okay.	13:14:56
7	Q. -- or column three of the PDF.	13:14:56
8	A. Column three?	13:14:56
9	Q. Column three, yes.	13:14:57
10	Do you see that it says that "Figure 29	13:15:04
11	is a functional diagram illustrating a device	13:15:06
12	communication stack that allows for implementing	13:15:07
13	verifiable traffic-shaping policy, access control	13:15:10
14	policy, and/or service monitoring policy in	13:15:13
15	accordance with the sum of the embodiments."	13:15:16
16	A. Yes, that's what it says.	13:15:19
17	Q. Okay. Is that consistent with your	13:15:21
18	understanding?	13:15:23
19	A. That sounds about right.	13:15:24
20	Q. And so what Figure 29 shows is located on	13:15:26
21	the device, right, because it illustrates a device	13:15:31
22	communication stack?	13:15:36
23	MR. BRIGHT: Objection to form.	13:15:37
24	THE WITNESS: Yeah, in accordance with	13:15:43
25	some embodiments. So this is one example, yeah, but	13:15:44

1	it doesn't specifically say on the device, it just	13:16:02
2	says "illustrating a device communication stack."	13:16:05
3	So it's, I guess, just an example or an	13:16:08
4	embodiment of the -- the stack and what the	13:16:11
5	functionality is there.	13:16:16
6	Q. (BY MR. WANG) Okay. Do you offer any	13:16:17
7	opinion that Headwater's infringement contentions	13:16:29
8	constitute a disclaimer of claim scope?	13:16:34
9	A. That phrase doesn't ring a bell in my	13:16:40
10	report.	13:16:42
11	Q. Do you have any such opinions sitting	13:16:51
12	here?	13:16:53
13	A. I'm not even sure what that means. I	13:16:54
14	suspect there are -- that has got a legal meaning	13:16:57
15	disclaimer specifically, so I certainly couldn't give	13:17:00
16	you any opinion about that today.	13:17:03
17	Q. All right. Can you turn to paragraph 42	13:17:05
18	of your report, please, of your declaration.	13:17:11
19	A. Sure. I will say that I think I have the	13:17:14
20	habit of saying "report" and I might mean	13:17:16
21	"declaration," so maybe we're both using that a	13:17:18
22	little bit interchangeably today. I hope that's	13:17:21
23	okay.	13:17:24
24	Q. Can we come to a mutual stipulation that	13:17:25
25	"declaration" means "report" and "report" means	13:17:27

1	"declaration"?	13:17:29
2	A. I could agree to that.	13:17:30
3	Q. So agreed. So could you please turn to	13:17:32
4	paragraph 42.	13:17:39
5	A. Okay. I'm with you.	13:17:40
6	Q. Okay. So here you offer an opinion about	13:17:42
7	this "Wherein" term in claim 19 of the '733 Patent,	13:17:48
8	right?	13:17:52
9	A. Yes.	13:17:52
10	Q. And this paragraph 42 contains your	13:17:53
11	entire opinion about indefiniteness, right?	13:18:05
12	A. Related to this, yes.	13:18:09
13	Q. And does this opinion depend on your	13:18:19
14	earlier opinion about the term "device agents" being	13:18:23
15	indefinite?	13:18:28
16	A. Yes, I think they're very related. There	13:18:30
17	is an overlap here because that's the term we're	13:18:33
18	talking about here.	13:18:35
19	Q. Okay. So if the term in claim one	13:18:36
20	"device agents" was found not to be indefinite, you	13:18:39
21	would not have an opinion that claim 19, this chart,	13:18:42
22	is indefinite?	13:18:47
23	MR. BRIGHT: Objection to form.	13:18:52
24	THE WITNESS: You know, I'm not sure. I	13:18:52
25	would probably have to hear what we came up with,	13:18:53

1 what the ruling was, and then go back and look at 13:18:56
2 that, and then put it in the context of what we have 13:18:59
3 in this claim as well. 13:19:03

4 Q. (BY MR. WANG) Okay. So do you have an 13:19:08
5 additional independent reason for why this is 13:19:10
6 indefinite? 13:19:13

7 A. Well, it is a different claim, so I would 13:19:14
8 have to look at the context of the claim, compare it 13:19:15
9 to -- and again, it would depend on what ruling we 13:19:19
10 get if it's indefinite or not. 13:19:22

11 Q. Okay. But here, at least in paragraph 13:19:25
12 42, you only have a few sentences, and in the second 13:19:31
13 sentence you say, "For similar reasons, a POSITA 13:19:35
14 would not be reasonably certain how to determine 13:19:39
15 whether a device agent..., " right? 13:19:42

16 A. That's right. And it says, "With respect 13:19:45
17 to claims 1 and 30." So I see how you're asking the 13:19:46
18 question there, I think. 13:19:50

19 Q. Yes. And so -- and I think you testified 13:19:52
20 a minute ago that it's related to your opinions about 13:19:55
21 the term "device agents" in claims 1 and 30? 13:19:58

22 A. That's right. 13:20:04

23 Q. Okay. Then you say here that, "in 13:20:05
24 general, presenting a notification through a user 13:20:11
25 interface was a well-known functionality that long 13:20:14

1	predates the asserted patents." Right?	13:20:17
2	A. Absolutely.	13:20:21
3	Q. And so that part of the claim, in	13:20:21
4	isolation, would not be indefinite, right?	13:20:25
5	MR. BRIGHT: Objection to form.	13:20:27
6	THE WITNESS: It's still not specific.	13:20:32
7	Presenting a notification through the user interface	13:20:41
8	has quite a breadth of meaning.	13:20:43
9	Q. (BY MR. WANG) Okay. So are you saying	13:20:46
10	that if something is broad, then that makes it	13:20:48
11	indefinite?	13:20:52
12	A. I think we're back to that again. I'm	13:20:53
13	just saying that here this doesn't nail this down.	13:20:55
14	It still seems indefinite to me.	13:20:58
15	Q. What do you mean "nail it down"?	13:21:01
16	So it has to be specific, it can't be	13:21:03
17	broad, you know, and include different types of	13:21:06
18	notification; it has to be a specific type for it to	13:21:08
19	be definite?	13:21:11
20	A. Oh, no, I don't mean that. I'm just	13:21:13
21	saying that what we have here presenting a	13:21:15
22	notification through the user interface is still	13:21:18
23	indefinite, especially based on the context of the	13:21:23
24	rest of this claim what's in the description for	13:21:29
25	sure.	13:21:35

1	Q. What -- what about what you just read,	13:21:36
2	"presenting a notification through the user	13:21:37
3	interface," is indefinite?	13:21:41
4	A. Well, it doesn't really -- it just says	13:21:44
5	"configured to assist in presenting." That really	13:21:46
6	doesn't tell me very much at all. We don't know what	13:21:50
7	"assist" means, for one thing. It's just not	13:21:52
8	specific. It's indefinite.	13:21:56
9	Q. Okay. So let's focus on the language	13:21:59
10	"configured to assist in presenting a notification	13:22:03
11	through the user interface, the notification based on	13:22:07
12	the message content."	13:22:10
13	Do you see that?	13:22:11
14	A. Yes.	13:22:12
15	Q. All right. So what about this is	13:22:13
16	indefinite and why, if anything?	13:22:18
17	A. Well, all of it is indefinite to me. It	13:22:21
18	really doesn't teach me anything. It doesn't specify	13:22:24
19	anything. It is still indefinite, and like I say	13:22:28
20	here in my report, it is just not clear how a person	13:22:32
21	of skill would have determined whether a particular	13:22:34
22	component assists in that presentation. It is not	13:22:37
23	clear.	13:22:41
24	Q. Okay. So I see what you have in your	13:22:41
25	declaration, and so is that your only reason for that	13:22:49

1	why that language is indefinite?	13:22:52
2	A. I would say that summarizes it. That's,	13:22:59
3	you know, me presenting my opinion, and this is how I	13:23:02
4	summarized it here.	13:23:05
5	Q. Well, to the extent you have some other	13:23:07
6	opinion, I don't see it in this paragraph or in your	13:23:09
7	report, right?	13:23:12
8	A. No, that is my summary of my opinion	13:23:12
9	about that issue.	13:23:15
10	Q. So why do you say the term "assist" that	13:23:19
11	you put in quotes is indefinite or "assists in"?	13:23:23
12	A. Because it is indefinite. It just says	13:23:28
13	"configured to assist," that really doesn't tell me	13:23:31
14	anything.	13:23:35
15	Q. Can a person of skill determine whether	13:23:37
16	or not something is assisting in a process or not?	13:23:39
17	A. They could. Here, I don't feel like	13:23:46
18	that's what we see.	13:23:49
19	Q. But a person of skill could determine	13:23:56
20	whether something assists in a process of a computer	13:23:57
21	system or a device?	13:24:02
22	MR. BRIGHT: Objection to form.	13:24:03
23	THE WITNESS: That's a big hypothetical.	13:24:04
24	It is possible. We just -- that's not the case here.	13:24:06
25	Q. (BY MR. WANG) And what makes this case	13:24:11

1	unique that --	13:24:12
2	A. The body of the patent and the claims.	13:24:16
3	Q. Okay. You understand the phrase	13:24:27
4	"presenting a notification through the user	13:24:27
5	interface," correct?	13:24:30
6	A. Roughly, yes.	13:24:34
7	Q. And you would be able to follow that	13:24:35
8	through the components of the system in source code,	13:24:43
9	for example?	13:24:45
10	MR. BRIGHT: Objection to form.	13:24:47
11	THE WITNESS: I think I could follow it	13:24:47
12	through source code. I don't know if there is any	13:24:48
13	specific place in the patent that walks me through	13:24:51
14	that. Off the top of my head, I don't recall that.	13:24:54
15	Q. (BY MR. WANG) Okay. So then if you were	13:25:02
16	looking at some other component or some component of	13:25:08
17	the system or computer, is it your testimony that	13:25:10
18	you're unable to determine if the component assists	13:25:13
19	in that process that you can follow by source code	13:25:16
20	and that you would have no idea?	13:25:18
21	A. That might have been a compound question.	13:25:23
22	I don't know if you could break it down for me.	13:25:25
23	Q. So I'm trying to understand why you find	13:25:27
24	it difficult to determine whether or not a component	13:25:30
25	assists in a process.	13:25:33

1 And my question to you is: If we're 13:25:36
2 following this process of presenting a notification 13:25:39
3 through the source code, for example, why would a 13:25:42
4 person of skill not be able to to determine whether a 13:25:47
5 component assists in that process? 13:25:50

6 A. I think a person of skill, if they had 13:25:56
7 all the source code, could do that, has a higher 13:25:58
8 chance of being able to figure that out based on this 13:26:05
9 language in the claim and in the patent. 13:26:09

10 Q. Let's go to the next term. Could I turn 13:26:24
11 your attention to paragraph 44. 13:26:27

12 A. Yeah, I'm with you. 13:26:32

13 Q. Okay. Your entire opinion for 13:26:33
14 indefiniteness for claim one of the '117 Patent and 13:26:37
15 the term "device messaging agents" is in paragraph 13:26:41
16 44, right? 13:26:45

17 A. Other than the fact that I say "As 13:26:47
18 discussed above with respect to claims 1 and 30," 13:26:49
19 where we have been discussing "device agent," so it 13:26:51
20 would be added to those. 13:26:54

21 Q. Okay. And so you referred to your 13:26:58
22 opinion for "device agent" for claims 1 and 30 of the 13:27:02
23 '733 Patent, right? 13:27:05

24 A. Exactly. 13:27:07

25 Q. Okay. And you say using the same term 13:27:08

1 for a similar reason, a POSITA would not be 13:27:12
2 reasonably certain what constitutes a device 13:27:16
3 messaging agent? 13:27:18

4 A. That's exactly right. 13:27:19

5 Q. The same question I asked you before. 13:27:22

6 If the term "device agents" in claims 1 13:27:24
7 and 30 of the '733 Patent were not found to be 13:27:28
8 indefinite, would you have an opinion that the term 13:27:33
9 "device messaging agents" is indefinite? 13:27:37

10 A. I think "device messaging agent" is a 13:27:43
11 whole other term. So if "device agent" is determined 13:27:45
12 to not be indefinite, I think I would still have to 13:27:50
13 look at anything related to "device messaging agent." 13:27:55

14 Q. Okay. Do you have separate or 13:27:59
15 independent reasons in your declaration? 13:28:09

16 A. Just what I have in my declaration here 13:28:14
17 and then referring to the other paragraphs related to 13:28:16
18 device agent. Just like I say here, you know, the 13:28:19
19 addition of the word "messaging" does not render its 13:28:26
20 meaning any more ascertainable than "device agent." 13:28:28

21 Q. Okay. So for the specific term "device 13:28:34
22 messaging agent," you only have these two sentences 13:28:37
23 here, right, beginning with "the specification does 13:28:41
24 not use such a term," and then the next sentence, "a 13:28:44
25 device messaging agent is not a known term in the 13:28:50

1	art."	13:28:53
2	Do you see that?	13:28:54
3	A. Yeah. And the claim language does not	13:28:54
4	help define the boundaries because it only teaches	13:28:56
5	that a device messaging agent is executable on an	13:28:59
6	end-user device and receives or forwards messages	13:29:02
7	from the Internet.	13:29:05
8	Q. Right.	13:29:09
9	A. And then, of course, referring to my	13:29:09
10	above discussion about device agent and claims 1 and	13:29:11
11	30, so that other part of my report as well.	13:29:14
12	Q. Okay. But specifically for the '733	13:29:16
13	Patent and for this term "device messaging agent,"	13:29:18
14	your opinion specific to that is these two sentences,	13:29:23
15	right, at the end of paragraph 44?	13:29:28
16	A. I would say it is the whole paragraph.	13:29:32
17	And then, of course, this paragraph says I'm also	13:29:33
18	referring to the above paragraphs before that related	13:29:37
19	to device agents.	13:29:39
20	Q. Right. But again, my question was	13:29:41
21	specifically about the '733 Patent -- I'm sorry,	13:29:47
22	specifically -- let me strike that.	13:29:52
23	Specifically for the '117 Patent in	13:29:53
24	claim 1 and the term "device messaging agent,"	13:29:56
25	specific to that patent and that term, your opinions	13:30:00

1	specific to that are in these two sentences?	13:30:04
2	A. I would say the whole paragraph; and then	13:30:08
3	again, because the whole paragraph says I'm also	13:30:10
4	referring to things about claims 1 and 30 of the '733	13:30:14
5	patent in my discussion above that, I think they are	13:30:19
6	all part of the same discussion.	13:30:22
7	Q. Right. You also say here "a device	13:30:24
8	messaging agent is not a known term in the art."	13:30:33
9	Do you see that?	13:30:35
10	A. I do.	13:30:36
11	Q. And is that similar to your opinion that	13:30:36
12	"device agent" is not a known term in the art?	13:30:42
13	A. Yes.	13:30:45
14	Q. So it's basically the same opinion?	13:30:48
15	A. It has elements of the same opinion, yes,	13:30:53
16	and it is based on my same skills and experience.	13:30:55
17	Q. Okay. What elements are different in	13:30:57
18	this opinion?	13:31:03
19	A. Well, we have an extra word. We don't	13:31:04
20	have "device agent" now, we have "device messaging	13:31:06
21	agent," but clearly the discussion of "device agent"	13:31:09
22	applies here as well, as I have said here.	13:31:12
23	Q. And then we talked before about how	13:31:15
24	"device" could be seen as a modifier of the word	13:31:17
25	"agent." Do you recall that?	13:31:26

1	A. We did, yes.	13:31:28
2	Q. Do you agree that the same is here, that	13:31:29
3	"device messaging" is modifying the word "agent"?	13:31:30
4	MR. BRIGHT: Objection to form.	13:31:38
5	THE WITNESS: Yeah, "device" could be	13:31:39
6	modifying the word "agent" here, and then "messaging"	13:31:41
7	could be modifying the word "agent" here, and then	13:31:44
8	"device messaging" could be modifying the word	13:31:47
9	"agent" here.	13:31:50
10	Q. (BY MR. WANG) Do you agree that "device	13:31:54
11	messaging agent" is narrower than "agent"?	13:31:56
12	A. It could be.	13:32:05
13	Q. Here, I don't see you expressing the	13:32:10
14	opinion that "device messaging agent" could mean the	13:32:12
15	same thing as "agent." Do you see that in this	13:32:16
16	paragraph.	13:32:19
17	A. No, I do not.	13:32:19
18	Q. Do you agree that "device messaging	13:32:25
19	agent" is narrower than "device agent"?	13:32:28
20	MR. BRIGHT: Objection to form.	13:32:38
21	THE WITNESS: It could be, but I think	13:32:39
22	they both have such a lack of reasonable certainty	13:32:43
23	from a person of skill that it's hard to have a	13:32:47
24	degree of certainty because they're both just --	13:32:53
25	there's no reasonable certainty for those.	13:32:57

1	Q. (BY MR. WANG) We talked before about the	13:33:06
2	word "agent" by itself. We also talked about the	13:33:08
3	word "device" by itself. Do you recall that?	13:33:11
4	A. Yeah.	13:33:13
5	Q. And would that same discussion apply to	13:33:13
6	this term?	13:33:15
7	A. I think so, yes.	13:33:20
8	Q. Let's talk about the word "messaging" by	13:33:21
9	itself. Would that have a plain and ordinary meaning	13:33:24
10	in the field of the asserted patents?	13:33:28
11	A. I think that would really depend on the	13:33:37
12	context. That's, you know, a pretty generic word.	13:33:40
13	So I think you would have to have some context for	13:33:43
14	that. "Messaging" might mean any number of things to	13:33:46
15	a person of skill, even in the field of these	13:33:49
16	patents.	13:33:51
17	Q. But it has a specific meaning, right?	13:33:52
18	A. No, not really. I think it would depend	13:33:56
19	on the context.	13:33:59
20	Q. So if I asked you if something was a	13:34:00
21	message or not, you would not be able to determine	13:34:02
22	that?	13:34:06
23	MR. BRIGHT: Objection to form.	13:34:08
24	THE WITNESS: I think on a case-by-case	13:34:09
25	basis, sometimes I could; sometimes I couldn't. It	13:34:11

1	depends on how it's used in the context of what	13:34:14
2	you're describing. Like, if I have a specification	13:34:17
3	or something like that, it might mean something very	13:34:20
4	specific, but other times it might be something so	13:34:24
5	broad that it could mean almost anything.	13:34:27
6	Q. (BY MR. WANG) Okay. Can you give me an	13:34:29
7	example in the art or in the field of the patents	13:34:32
8	where you would not be sure about something being a	13:34:36
9	message or not?	13:34:40
10	A. That a big question.	13:34:45
11	Q. Well, it's actually very specific.	13:34:46
12	I'm saying: Can you give me any example	13:34:49
13	where you would not be able to determine if it's a	13:34:53
14	message or not?	13:34:58
15	A. Not off the top of my head, no. I've	13:34:59
16	just read too many things in my career to think of an	13:35:00
17	example. "Messaging" is just used in many ways in	13:35:06
18	many contexts.	13:35:10
19	Q. Can you think of an example where someone	13:35:19
20	used that word "message" and you didn't know what it	13:35:21
21	meant or you didn't know what it was referring to?	13:35:24
22	A. Nothing comes to mind here sitting here,	13:35:27
23	no.	13:35:29
24	Q. In paragraph -- paragraph 44, you don't	13:35:30
25	include any citations to the specification of the	13:35:55

1	'117 Patent, right?	13:35:58
2	A. No, I don't.	13:35:59
3	Q. Do you have the opinion that the word	13:36:18
4	"messaging" by itself makes the term indefinite?	13:36:19
5	A. I'm not sure I get the question. Like,	13:36:25
6	if I didn't have that word in there, would it still	13:36:28
7	be indefinite?	13:36:31
8	Q. Oh. I guess what I mean is here in	13:36:33
9	paragraph 44, you say that the addition of the word	13:36:36
10	"messaging" does not render its meaning any more	13:36:39
11	ascertainable than a "device agent."	13:36:43
12	Do you see that?	13:36:46
13	A. Yeah. And that's my opinion.	13:36:46
14	Q. That's your opinion, okay, but do you	13:36:48
15	have the opinion that the word "messaging" renders	13:36:50
16	the meaning less ascertainable or more indefinite?	13:36:56
17	A. I don't know if I have a degree of	13:37:02
18	indefinite scale. It is just not something that,	13:37:05
19	again, a person of skill with reasonable certainty	13:37:08
20	would understand the scope of limitation in the	13:37:10
21	claim.	13:37:13
22	Q. Okay. But your opinion is what you have	13:37:14
23	here, which is literally does not render its meaning	13:37:16
24	any more ascertainable?	13:37:21
25	A. That's right.	13:37:22

1	Q. Okay. And in paragraph 44, you don't	13:37:26
2	cite to the prosecution history, right?	13:37:35
3	A. Oh, no, I don't.	13:37:37
4	Q. Okay. Do you recall citing to the	13:37:38
5	prosecution history anywhere in your declaration?	13:37:39
6	A. Not specifically. I could see that I	13:37:58
7	refer to it in the description for the legal standard	13:38:01
8	for "claim construction," and as I mentioned, I did	13:38:03
9	look at the file histories for all three patents.	13:38:05
10	Q. Right. You did list it in your	13:38:08
11	"Materials Considered," but I don't believe that you	13:38:10
12	cite to it elsewhere in your declaration, and you	13:38:14
13	don't recall doing that, do you?	13:38:19
14	A. I don't think I have that specifically in	13:38:22
15	the declaration. I certainly reviewed it, and that's	13:38:23
16	part of what I considered in giving my opinions here.	13:38:29
17	Q. Do you remember anything from the	13:38:32
18	prosecution history, sitting here, anything that	13:38:33
19	would be relevant or inform your opinions?	13:38:37
20	A. Nothing comes to mind sitting here right	13:38:53
21	now, no.	13:38:55
22	Q. Okay. You say that the phrase -- or the	13:38:57
23	term "device messaging agent" is not in the	13:38:59
24	specification; is that correct?	13:39:02
25	A. I think that's right.	13:39:05

1	Q. In paragraph 44, you say that the	13:39:10
2	specification does not use such a term?	13:39:12
3	A. That's right.	13:39:15
4	Q. Do you know if this specification uses	13:39:20
5	the term "agent messages" or "agent message"?	13:39:22
6	A. Oh, not off the top of my head, no.	13:39:26
7	Q. Okay. Did you consider that question?	13:39:28
8	A. I don't recall considering that, no.	13:39:38
9	Q. And you don't recall considering the	13:39:39
10	portions of the specification that discuss that if it	13:39:44
11	uses the term "agent message" or "agent messages"?	13:39:48
12	A. I don't recall doing that either way.	13:39:54
13	What I was trying to do here is try to give an	13:39:56
14	opinion on "device messaging agent," which is in the	13:40:00
15	claim, so that's what I looked for and that's what	13:40:04
16	I'm discussing in this section.	13:40:07
17	Q. Okay. Do you have the opinion that	13:40:10
18	"agent message" or "agent messages" is referring to	13:40:12
19	something different?	13:40:18
20	A. Without looking at that, I just can't	13:40:22
21	say.	13:40:24
22	MR. BRIGHT: Objection to form.	13:40:25
23	THE WITNESS: I certainly don't have the	13:40:26
24	memory of, you know, a 200-page patent in my head.	13:40:27
25	Q. (BY MR. WANG) Can you look back at	13:40:30

1	Figure 16 of the patent. You could turn to it in	13:40:41
2	your declaration, because I think it is shown a	13:40:45
3	couple of times.	13:40:48
4	A. Yeah, I have got it on page 15, for one,	13:40:51
5	of my declaration.	13:40:53
6	Q. Okay. We may have covered this before	13:40:56
7	but I wanted to ask you again.	13:40:58
8	So do you see the item numeral 1691	13:41:00
9	Service Control Device Link?	13:41:04
10	A. I do.	13:41:06
11	Q. Okay. Do you know whether or not this	13:41:07
12	Service Control Device Link can be assumed to be	13:41:15
13	equivalent to an agent for communication purposes?	13:41:18
14	MR. BRIGHT: Objection to form.	13:41:21
15	THE WITNESS: If you'll ask me that again	13:41:46
16	now that I have looked at it.	13:41:48
17	(Reporter drops off)	14:24:45
18	THE VIDEOGRAPHER: We are back on the	14:27:12
19	record. The time is 2:26 p.m.	14:27:13
20	Q. (BY MR. WANG) Welcome back,	14:27:14
21	Dr. Turnbull.	14:27:26
22	A. Hi there.	14:27:28
23	Q. Nice lunch?	14:27:28
24	A. I guess so. How about you?	14:27:29
25	Q. Very good, but quick.	14:27:31

1	Did you discuss anything with your	14:27:33
2	attorney during the break?	14:27:34
3	A. No.	14:27:35
4	Q. Did you have any discussions with him --	14:27:40
5	A. No.	14:27:43
6	Q. -- once on --	14:27:44
7	Okay. So we had technical difficulties	14:27:52
8	before where I think a portion of your response was	14:27:56
9	cut off, so what I'm going to do is I'm going to go	14:27:58
10	back to that question I asked before our lunch break,	14:28:02
11	and we were talking about Figure 16 of the '116	14:28:04
12	Patent -- '117 Patent. And if you want to look at it	14:28:14
13	in your report, it is on page 15 of your report.	14:28:21
14	A. Okay.	14:28:29
15	Q. And my question is in Figure 16 of the	14:28:30
16	'117 Patent, do you see this item that's noted as	14:28:38
17	Item 1691 called the Service Control Device Link?	14:28:45
18	Do you see that?	14:28:51
19	A. I see Service Control Device Link 1691,	14:28:53
20	yes.	14:28:56
21	Q. And this Service Control Device Link in	14:29:06
22	the '117 Patent can be assumed to be equivalent to an	14:29:08
23	agent for communication purposes?	14:29:13
24	MR. BRIGHT: Objection to form.	14:29:17
25	THE WITNESS: I don't know. I would	14:29:20

1	think if that I wanted it to be considered an agent	14:29:21
2	that I would have called it an agent, like several	14:29:23
3	other things in this figure.	14:29:26
4	Q. (BY MR. WANG) So do you -- do your claim	14:29:28
5	construction opinions assume that Service Control	14:29:43
6	Device Link is not an agent or equivalent to an	14:29:45
7	agent?	14:29:51
8	A. I don't think I say either way	14:29:59
9	specifically regarding that in my report, and I would	14:30:01
10	say what I just said, it is not listed as an agent in	14:30:03
11	the description in 1691, so I just can't know since	14:30:06
12	they stated other things as an agent; and I don't	14:30:10
13	recall anything in the file history where they, you	14:30:14
14	know, modified a figure or corrected something	14:30:17
15	because they didn't do it right in a figure, say this	14:30:21
16	figure. I don't remember anything about that.	14:30:24
17	Q. You said you don't recall anything in the	14:30:28
18	file history. Do you recall anything in the	14:30:32
19	specification?	14:30:35
20	A. No, only what's in my declaration here.	14:30:36
21	Q. Okay. And then at the end of paragraph	14:30:42
22	44 you say that "the claim language does not help	14:31:09
23	define its boundaries because it only teaches that a	14:31:12
24	device messaging agent is executable on an end-user	14:31:15
25	device and receives/forwards message from the	14:31:19

1	Internet."	14:31:21
2	Do you see that?	14:31:22
3	A. I do.	14:31:22
4	Q. And that's not the claim language, right,	14:31:24
5	that is a paraphrase of the claim language?	14:31:26
6	A. Yes, that's right.	14:31:30
7	Q. Do you agree that, in general, claim	14:31:38
8	language can help define the boundaries of a term?	14:31:41
9	A. I would hope so, yes.	14:31:49
10	Q. And here in the '117 Patent, there is	14:31:52
11	claim language regarding "device messaging agents,"	14:31:54
12	correct?	14:32:00
13	A. A "device messaging agent," yes.	14:32:04
14	Q. Okay. Let me ask you about the next	14:32:13
15	term, which is on B. It begins with "at least one of	14:32:15
16	the devices having a network stack."	14:32:19
17	Do you see that above paragraph 46 of	14:32:21
18	your declaration?	14:32:23
19	A. I do see that. I'm with you.	14:32:26
20	Q. Okay. Let me first ask you about the	14:32:28
21	first part of it.	14:32:38
22	"At least one of the devices having a	14:32:38
23	network stack in communication with the device	14:32:45
24	messaging agent," do you see that?	14:32:47
25	A. Yes.	14:32:49

1 Q. Okay. So the language "at least one of 14:32:50
2 the devices having a network stack in communication 14:32:54
3 with," do you find anything indefinite about that 14:32:57
4 language? 14:33:07

5 A. I would say what comes to mind is what I 14:33:12
6 had right after that in my declaration in the context 14:33:14
7 of computer network. Network stack, as we're 14:33:18
8 discussing, refers to these logical layers that 14:33:22
9 describe how different network functionality is 14:33:25
10 conceptually organized. As such, it is unclear how 14:33:28
11 any pair of networking devices or networked device 14:33:32
12 would not have a network stack. The patent itself 14:33:35
13 describes a network stack as a standard feature. 14:33:38

14 Q. All right. So -- so you think that any 14:33:43
15 pair of networking devices would have a network 14:33:46
16 stack? 14:33:49

17 A. Yes. 14:33:50

18 Q. Okay. And you -- you would, as the 14:33:51
19 person skilled, know what the network stack is? 14:33:55

20 A. Yes. And I will say they would have a 14:33:59
21 network stack unless otherwise specified. 14:34:02

22 Q. Okay. And what -- what network stack 14:34:05
23 would they have by default or unless otherwise 14:34:07
24 specified? 14:34:11

25 A. Well, I think it would depend on the 14:34:12

1 context of what's being described, but I think this 14:34:14
2 is a fairly standard -- I think the OSI network stack 14:34:17
3 layers, which I guess application is the top level, 14:34:22
4 and I think there's six other levels, I'm just trying 14:34:25
5 to remember off the top of my head, and I think 14:34:29
6 that's what this may be referring to. 14:34:30

7 Q. Okay. Can you roughly describe what -- 14:34:32
8 what that "network stack" is? 14:34:34

9 You said the application layer's at the 14:34:37
10 top, and you may not remember all of the layers, but 14:34:39
11 can you describe what -- what you remember as an 14:34:43
12 expert? 14:34:46

13 A. Sure. Just off the top of my head, the 14:34:49
14 network stack, to me, is a series of technologies and 14:34:52
15 protocols that I guess in the Internet world, which I 14:34:57
16 guess is what we're mostly dealing with in the last 14:35:00
17 40 years or so, the combination of well-known, 14:35:00
18 well-documented, primarily useable by most people set 14:35:08
19 of these technologies and protocols that provide, 14:35:16
20 coordinate, acknowledge, and enable the transfer of 14:35:22
21 communication between two systems on a network. 14:35:27

22 Q. Okay. And is there a difference between 14:35:33
23 what you just said and the networking communications 14:35:47
24 stack of the device OS? 14:35:51

25 MR. BRIGHT: Objection to form. 14:35:57

1	THE WITNESS: I'm not sure what you mean	14:35:59
2	by "device OS."	14:36:00
3	Q. (BY MR. WANG) Well, you have this as part	14:36:06
4	of a quote in paragraph 46. In parentheses you say	14:36:07
5	"Thereby" -- or you quote, "Thereby not requiring any	14:36:15
6	modification of the device network communication	14:36:19
7	stack of the device OS."	14:36:21
8	A. Yeah, I see that. I didn't know if	14:36:23
9	that's what you were referring to or not.	14:36:25
10	Q. So it -- is what you were just describing	14:36:31
11	the same thing as -- as this networking device --	14:36:36
12	networking communications stack of the device OS?	14:36:39
13	A. Yeah, generally. I would say it could	14:36:45
14	extend -- it could be another device or another	14:36:48
15	system as well, but it's a pretty standard networking	14:36:50
16	stack.	14:36:54
17	Q. Okay. And what is an API interface with	14:36:56
18	the network stack?	14:37:10
19	A. There could be more than one. API stands	14:37:11
20	for application programming interface, at least most	14:37:14
21	of time that's what we mean by it, and it would be	14:37:17
22	the ways that you could have software source code to	14:37:20
23	communicate with various levels or layers of the	14:37:25
24	stack as needed.	14:37:28
25	Q. And that inter -- that interface API or	14:37:31

1	API interface, can that be invoked by the operating	14:37:40
2	system of the device?	14:37:45
3	A. It could be in some cases, yes.	14:37:49
4	Q. And can it be invoked or used by	14:37:51
5	applications of a device?	14:37:54
6	A. Possibly. It could be a combination	14:38:04
7	where an application may request something that the	14:38:04
8	operating system then coordinates to be used.	14:38:07
9	Q. Okay. And it can send instructions to	14:38:16
10	terminate a communication, correct?	14:38:19
11	MR. BRIGHT: Objection to form.	14:38:25
12	THE WITNESS: I guess that's a	14:38:32
13	possibility. It might depend on what you mean by	14:38:34
14	"terminate."	14:38:36
15	Q. (BY MR. WANG) And it can send	14:38:41
16	instructions or has the capability of terminating a	14:38:42
17	secured connection?	14:38:46
18	MR. BRIGHT: Objection to form.	14:38:52
19	THE WITNESS: Do you mean -- when you	14:38:52
20	said "it," do you mean an application or the device	14:38:55
21	OS or them in concert --	14:38:57
22	Q. (BY MR. WANG) Oh, no, okay. Okay.	14:39:00
23	Let me -- let me say this: The -- the	14:39:01
24	API interface can be used to or has the capability to	14:39:05
25	terminate a connection?	14:39:12

1	A. I guess it would depend on the API that	14:39:15
2	you're using.	14:39:18
3	Q. The API to the network stack.	14:39:20
4	A. Again, it would depend on what API you're	14:39:23
5	using and what part of the network stack you're	14:39:27
6	talking to.	14:39:30
7	Q. But it could, right?	14:39:34
8	A. That's -- yeah, that's a wide range of	14:39:35
9	possibilities, it could.	14:39:38
10	Q. The same question for a secure	14:39:44
11	connection, the API interface to the network stack	14:39:46
12	can be used to terminate a secure connection?	14:39:49
13	MR. BRIGHT: Objection to form.	14:39:55
14	THE WITNESS: It would depend on the API	14:40:01
15	and even what you mean by "terminate the connection."	14:40:05
16	I don't know if you mean end it at the end of a -- of	14:40:10
17	a transmission or, you know, a dataset or stop in the	14:40:12
18	middle of it or don't allow it. Even that has, you	14:40:16
19	know, a lot of different meanings with terminate.	14:40:20
20	Q. (BY MR. WANG) Okay. But the examples	14:40:22
21	that you just gave are possible functionality that	14:40:25
22	could be carried out by the interface API to the	14:40:32
23	network stack?	14:40:35
24	A. I think maybe one part we're not syncing	14:40:40
25	up is you said "the interface API," and I guess there	14:40:42

1 could be more than one, but I certainly would agree 14:40:46
2 that the possibilities of doing something with 14:40:48
3 different APIs that could work with a standard 14:40:51
4 network stack or maybe network stacks generally could 14:40:56
5 have functionality like that. 14:40:59

6 Q. Okay. In a device, what -- what 14:41:01
7 functionality is outside the network stack? Would 14:41:10
8 that include certain operation of applications? 14:41:15

9 A. Certainly. 14:41:24

10 Q. Well, what sort of operations would that 14:41:29
11 include, just an example, things being displayed to 14:41:31
12 the user does not necessarily have to do with the 14:41:34
13 network stack? 14:41:39

14 A. It could have something to do with the 14:41:40
15 network stack; it might not. It depends on how your 14:41:42
16 operating system is and what your application is set 14:41:46
17 to do. 14:41:49

18 Q. Well, what about just, for example, 14:41:50
19 closing an application, does that have anything to do 14:41:57
20 with the network stack? 14:42:00

21 MR. BRIGHT: Objection to form. 14:42:01

22 THE WITNESS: That -- that's pretty 14:42:06
23 broad. Hypothetically it's possible. In the 14:42:07
24 different types of applications you might have, it 14:42:12
25 could. 14:42:14

1 Q. (BY MR. WANG) So it could have something 14:42:16
2 to do with the network stack? 14:42:17

3 A. Yeah, that's just such a broad range of 14:42:19
4 possibles to think about the different things you 14:42:22
5 could do as a programmer and what applications can 14:42:24
6 do. So it's certainly possible. I don't know if 14:42:26
7 it's relevant to anything you're asking about related 14:42:29
8 to the patents or not, but hypothetically it's 14:42:32
9 possible. 14:42:34

10 Q. And could -- could it not have to do with 14:42:39
11 the network stack? 14:42:41

12 You said it -- it could have something to 14:42:42
13 do with the network stack. I just want to confirm 14:42:43
14 that it could have not -- nothing to do with the 14:42:47
15 network stack? 14:42:52

16 A. Yeah, I think by me saying "it could have 14:42:54
17 something," that also implies, kind of logically, 14:42:56
18 that it could not. The breadth of what you can do 14:42:59
19 with software, especially in communicating between 14:43:02
20 two systems over a network, is just about as broad of 14:43:05
21 a concept as there is in computer science. So 14:43:08
22 certainly there are possibilities there. 14:43:11

23 Q. Can an application terminate a connection 14:43:15
24 outside the network stack? 14:43:19

25 MR. BRIGHT: Objection to form. 14:43:22

1	THE WITNESS: Do you mean terminate a	14:43:27
2	network connection or just any kind of connection?	14:43:28
3	Q. (BY MR. WANG) Well, first let me ask a	14:43:35
4	network connection?	14:43:37
5	A. I guess, again, hypothetically, it's	14:43:39
6	possible. If you're referring to something in the	14:43:41
7	patents, I would be happy to look. I'm not really	14:43:44
8	sure the context of the question.	14:43:48
9	Q. I'm just asking you in general first, and	14:43:50
10	so would your answer be -- be the same that -- that	14:43:56
11	it's possible?	14:43:58
12	A. Generally, yes. If you ask me in	14:44:00
13	general, yes.	14:44:01
14	Q. I want to focus you on the claim language	14:44:12
15	on -- of the term B, and it's in the heading of	14:44:15
16	sub -- subsection B above paragraph 46. Could you	14:44:19
17	take a look at that.	14:44:24
18	A. Okay. I'm with you.	14:44:26
19	Q. And my question is that: This language	14:44:28
20	at the end just says "is terminated within the	14:44:32
21	network stack." It doesn't say "terminated within a	14:44:36
22	particular layer of the network stack," correct?	14:44:41
23	A. I agree, that's not what it says.	14:44:44
24	Q. Okay. And so it doesn't require that the	14:44:47
25	connection be terminated within a particular layer?	14:44:54

1	A. That's not what it says.	14:45:02
2	Q. What's your understanding of the term	14:45:16
3	"the secure connection between the network message	14:45:17
4	server and the device"?	14:45:21
5	A. It implies there's some kind of	14:45:38
6	connection between a server and a device and it has	14:45:41
7	some level of what is -- I have to assume they think	14:45:51
8	is secure, as described.	14:45:56
9	Q. Could you turn to the '117 Patent. That	14:46:12
10	was Exhibit 6.	14:46:19
11	A. I have got it open.	14:46:21
12	Q. Okay. Let's look at the description of	14:46:26
13	"figures" for a second. I believe it was at column	14:46:29
14	three of the patent.	14:46:33
15	A. Okay. I will scroll there.	14:46:36
16	Q. Okay. Do you see on the description --	14:46:54
17	A. I am not there yet. If you'll give me --	14:46:56
18	Q. Sure.	14:47:00
19	A. It is not updating very well because it	14:47:00
20	is such a big document. Okay. I'm on column three.	14:47:02
21	Q. Okay. I want to call your attention to	14:47:10
22	the description of Figures 24 and 25. So it says	14:47:12
23	that 24 is "a functional diagram illustrating the	14:47:17
24	Service Control Device Link of the service processor	14:47:20
25	and the Service Control Service Link of the service	14:47:24

1	controller in accordance with some embodiments."	14:47:27
2	Do you see that?	14:47:31
3	A. Yes.	14:47:32
4	Q. And then for Figure 25 it says that	14:47:32
5	"Figure 25 is a functional diagram illustrating a	14:47:37
6	framing structure of a Service Processor	14:47:40
7	Communication Frame and a Service Controller	14:47:42
8	Communication Frame in accordance with some	14:47:45
9	embodiments."	14:47:47
10	Do you see that?	14:47:49
11	A. I do.	14:47:49
12	Q. I don't recall Figures 24 and 25 being	14:47:55
13	discussed in -- in your declaration. Do you remember	14:47:58
14	if they -- if they were?	14:48:01
15	A. I do not discuss those.	14:48:03
16	Q. Okay. Do you recall reviewing them or	14:48:05
17	considering them?	14:48:09
18	A. I'm sure I looked at them, but beyond	14:48:11
19	that, I don't have much recollection. I think there	14:48:13
20	are so many figures, I certainly don't have a memory	14:48:16
21	of each one.	14:48:21
22	Q. Okay. Let's look at Figure 24.	14:48:22
23	A. Okay.	14:48:39
24	Q. And if you want, you could rotate the PDF	14:48:40
25	or I could --	14:48:43

1	A. I already have -- no, I already have.	14:48:44
2	Q. Let me do this again.	14:48:53
3	A. Okay.	14:48:55
4	Q. So in Figure 24, I just want to ask, does	14:48:59
5	this appear to show a secure connection?	14:49:02
6	A. Just looking at the figure, I don't see	14:49:27
7	the word "secure" in there.	14:49:30
8	Q. What about the word "encrypt"?	14:49:39
9	A. I do see "encrypt" in describing Box 2408	14:49:44
10	and in Box 2428 in Figure 24.	14:49:56
11	Q. And does that inform whether or not this	14:50:02
12	could be a secured connection?	14:50:06
13	A. It does not, not just out of context like	14:50:08
14	that. I would have to --	14:50:11
15	Q. Okay.	14:50:12
16	A. -- read what it says, whether it	14:50:12
17	describes the figure and then understand the breadth	14:50:15
18	of what they mean by "encrypt." Does that mean	14:50:18
19	encrypt part of it? I -- this just doesn't give me	14:50:20
20	enough information.	14:50:24
21	Q. All right. So what -- what's your	14:50:25
22	understanding of a secured connection?	14:50:31
23	Would -- would you agree that an	14:50:32
24	encrypted message or a connection where messages are	14:50:34
25	encrypted would be a secured connection?	14:50:40

1	A. It would depend.	14:50:43
2	MR. BRIGHT: Objection to form.	14:50:45
3	Q. (BY MR. WANG) What would it depend on?	14:50:49
4	A. The system. Probably the protocols as	14:50:51
5	well.	14:50:54
6	Q. Okay. And I think we covered this	14:50:54
7	before, but you don't have any opinions about this	14:51:06
8	figure?	14:51:09
9	A. I haven't offered anything in my report,	14:51:10
10	no.	14:51:13
11	Q. Okay. Do you see the boxes -- the box	14:51:13
12	that says "Transport Services Stack"?	14:51:16
13	A. I think it's Box 2410?	14:51:19
14	Q. Uh-huh. And 2420 as well.	14:51:21
15	A. Oh. I guess I don't see that one. Oh, I	14:51:25
16	see, yes, 2420 as well.	14:51:33
17	Q. Do you have any understanding of what	14:51:36
18	that is based on looking at the figure?	14:51:38
19	A. No, not based on just looking at the	14:51:42
20	figure. I would have to see what's described in the	14:51:44
21	patent.	14:51:49
22	Q. Let's look at the next figure, and you	14:51:56
23	may have to rotate it if you haven't already.	14:51:58
24	Figure 25.	14:52:01
25	A. Okay. I have got it open here.	14:52:04

1	Q. Okay. Do you see that this has Service	14:52:07
2	Processor Communication Frame 2502 and Service	14:52:14
3	Controller Communication Frame 2522?	14:52:19
4	Do you see that?	14:52:22
5	A. I do.	14:52:23
6	Q. And do you have any understanding of	14:52:23
7	what -- what this is based on looking at the figure?	14:52:33
8	A. No, I don't. Especially in contrast to	14:52:38
9	what seems to be the same type of figure, at least	14:52:40
10	that's what the patent claims, and they really don't	14:52:44
11	seem to use the same type of diagramming conventions.	14:52:47
12	They really don't match up. It says that they're	14:52:50
13	both functional diagrams. I guess they describe	14:52:54
14	entirely different types of functions, because the	14:52:56
15	diagrams are very different.	14:52:59
16	Q. Okay. Does claim -- Figure 25 show like	14:53:00
17	the messages that are sent in Figure 24?	14:53:07
18	A. I don't know how they're related.	14:53:11
19	Q. Okay. Do you see in Figure 25 it talks	14:53:23
20	about several agents and then it has, for example,	14:53:27
21	2510, it says "Agent Function Number One Message	14:53:34
22	Length and Agent Function Number One Message, ...,	14:53:37
23	Agent Function Number N Message Length, Agent	14:53:41
24	Function Number N message"?	14:53:47
25	A. I think I see that there, yes.	14:53:52

1	Q. And that's repeated on the bottom, too,	14:53:55
2	right?	14:54:03
3	A. It looks like it's the same thing, yes.	14:54:05
4	Q. And so these seem to describe agents	14:54:05
5	relating to messages, right?	14:54:07
6	A. I just don't know that looking at this.	14:54:13
7	Q. But there are boxes that has the word	14:54:16
8	"agent" and then it has the word "message" in several	14:54:17
9	of those boxes at the top and bottom of the figure?	14:54:21
10	A. Sure, that's -- that's the text that's	14:54:25
11	there. Sometimes both words are in a box.	14:54:29
12	Q. Okay. And you don't discuss or consider	14:54:31
13	Figure 25 in offering your claim construction	14:54:36
14	opinions, right?	14:54:39
15	A. No, no --	14:54:40
16	MR. BRIGHT: Objection to form.	14:54:41
17	THE WITNESS: -- not in my declaration.	14:54:41
18	Q. (BY MR. WANG) What about the written	14:54:59
19	description regarding Figures 24 and 25, do you	14:55:01
20	recall discussing or considering that in your	14:55:04
21	declaration?	14:55:09
22	A. If they're --	14:55:09
23	MR. BRIGHT: Objection to form.	14:55:09
24	THE WITNESS: If they're in the patent, I	14:55:10
25	probably considered them, but certainly I don't have	14:55:12

1	a memory of reading that in, you know, a nearly	14:55:14
2	200-page patent.	14:55:16
3	Q. (BY MR. WANG) Do you agree that a secured	14:55:33
4	connection in the context of the patent can be	14:55:34
5	terminated within the network stack?	14:55:36
6	A. I think that's what the patent is	14:55:47
7	claiming it can do, yes.	14:55:50
8	Q. Okay. Do you agree that in the abstract,	14:55:51
9	a secured connection can be terminated within a	14:55:54
10	network stack?	14:55:58
11	A. Hypothetically in the possibilities of	14:56:04
12	what you could do with software, I guess you could.	14:56:07
13	You would probably have to define what those terms	14:56:10
14	mean in a new context to ask me that.	14:56:13
15	Q. But just based on those words, you think	14:56:20
16	it could -- it could happen?	14:56:22
17	MR. BRIGHT: Objection to form.	14:56:26
18	THE WITNESS: I guess hypothetically,	14:56:29
19	something could work that way, yes.	14:56:29
20	Q. (BY MR. WANG) Let's go to the next term.	14:56:39
21	this is the '192 Patent and this is the first term	14:56:43
22	"software components" --	14:56:47
23	A. Yes.	14:56:49
24	Q. -- and your opinion starts in paragraph	14:56:49
25	49.	14:56:52

1	A. I'm with you.	14:56:53
2	Q. Okay. Okay. So you say in -- in	14:56:54
3	paragraph 49 that the -- the term "software	14:57:10
4	components" would be understood to refer to some	14:57:14
5	component of software, correct?	14:57:17
6	A. Simply put, yes.	14:57:19
7	Q. Hence, I want to be clear.	14:57:27
8	Your opinion is specifically about this	14:57:28
9	term, right, "software components," like these two	14:57:34
10	words?	14:57:36
11	A. That's right. Just like I say here, it's	14:57:37
12	exceptionally generic.	14:57:39
13	Q. Okay. But you don't consider like the	14:57:41
14	stronger -- the longer claim limitation where -- you	14:57:43
15	know, this is the claim term that you're -- you're	14:57:49
16	looking at?	14:57:52
17	A. That's right, that's why I have it here	14:57:53
18	broken out like this.	14:57:55
19	Q. Okay. And then in paragraph 49 you say,	14:57:56
20	"Specifically, it is unclear whether software	14:58:14
21	comments encompass device link agents or whether	14:58:17
22	software components and device agents must be	14:58:20
23	different things." Right?	14:58:24
24	A. That's right.	14:58:27
25	Q. Okay. And is that the multiple meanings	14:58:27

1 or interpretations that you've identified for this 14:58:37
2 term? 14:58:39
3 A. That would at least be one example, yes. 14:58:40
4 Q. Okay. Do you have any other examples? 14:58:42
5 A. I think right here I'm only referring to 14:58:44
6 this one example. 14:58:47
7 Q. All right. Do you have any others in 14:58:53
8 your declaration? 14:58:54
9 A. Whatever the rest of the three or four 14:58:54
10 paragraphs here discuss. 14:58:56
11 Q. Okay. Can you identify any examples of 14:58:57
12 "multiple meaning" in the rest of those paragraphs? 14:59:01
13 A. Yeah, really, the body of -- of paragraph 14:59:15
14 50, 51, and 52 speak to that. 14:59:17
15 Q. So, yeah, you are talking about device 14:59:26
16 agents, but I -- I just want to -- and we have got 14:59:29
17 that already. 14:59:34
18 I just want to know if there's any other 14:59:35
19 issue that you're raising about multiple meanings or 14:59:38
20 interpretations? 14:59:42
21 A. Just what's in this section. 14:59:45
22 Q. And is this argument about device agents, 14:59:48
23 about whether software components encompass device 14:59:51
24 agents or whether software components and device 14:59:56
25 agents must be different things, is there anything 14:59:59

1	else? And can you identify that for me?	15:00:03
2	A. Just what I have in these paragraphs.	15:00:06
3	Q. Can you identify anything else in these	15:00:12
4	paragraphs?	15:00:15
5	A. I can read the paragraphs. I'm not sure	15:00:15
6	I really understand the question, because I feel like	15:00:17
7	I have already answered it. So either I don't	15:00:20
8	understand it or you don't like the answer, I'm not	15:00:22
9	sure which.	15:00:24
10	Q. And is your opinion that the claim	15:00:43
11	describes software components as including device	15:00:54
12	link agents or different from or both?	15:00:59
13	MR. BRIGHT: Objection to form.	15:01:04
14	THE WITNESS: Yeah, I think I'm trying to	15:01:13
15	understand the difference or to understand if that's	15:01:15
16	what they mean as one and the same.	15:01:16
17	Q. (BY MR. WANG) Are you still looking,	15:01:18
18	Dr. Turnbull?	15:02:50
19	A. Oh, no. I didn't know there was a	15:02:50
20	pending question.	15:02:52
21	Q. Oh, I'm sorry. I thought that you were	15:02:52
22	taking a minute to look at the -- okay. So let --	15:02:54
23	let me try to -- try to ask it a different way.	15:03:02
24	Let's go back to paragraph 49, okay?	15:03:05
25	A. Okay.	15:03:07

1	Q. So your last sentence there you said,	15:03:08
2	"It's unclear whether software components encompass	15:03:09
3	device agents or whether software components and	15:03:12
4	device agents must be different things."	15:03:17
5	Do you see that?	15:03:19
6	A. Yes.	15:03:20
7	Q. Okay. If something -- if A encompasses B	15:03:20
8	or A is broader than B, that could be true as well as	15:03:26
9	A and B being different things, right?	15:03:37
10	A. If one encompasses the other, I would	15:03:41
11	think there was some commonality. They wouldn't be	15:03:47
12	different things, unless you have better vocabulary	15:03:51
13	than "things" to describe both of them.	15:03:54
14	Q. Oh, so by "different," do you mean, like,	15:04:00
15	mutually exclusive?	15:04:10
16	A. I think so. I think you're the one that	15:04:12
17	used the word "different," so I was just replying to	15:04:14
18	that.	15:04:18
19	Q. Okay. Well, you're the one who used the	15:04:18
20	word "different" --	15:04:20
21	A. Okay.	15:04:21
22	Q. -- in paragraph 49.	15:04:22
23	So what do you mean by "different," must	15:04:22
24	be different things?	15:04:24
25	A. Not the same.	15:04:26

1	Q. I mean, two things can be different, if	15:04:36
2	they're different concepts, if they have different	15:04:38
3	scope; but here by "different," do you mean not, you	15:04:41
4	know, including the same thing, not -- I guess the	15:04:51
5	word I use is "mutually exclusive."	15:04:54
6	Do you mean that?	15:04:57
7	A. No, I think I mean different. I think	15:04:58
8	they're not the same. I wasn't trying to be tricky	15:05:02
9	when I wrote this.	15:05:05
10	Q. Okay. So in your mind, there is	15:05:08
11	something inconsistent to say that A encompasses B	15:05:10
12	and A and B being different things or --	15:05:25
13	A. Broadly, yes; but more specifically, not	15:05:28
14	only in my mind, but also in the patent in this case,	15:05:32
15	you just can't tell if these are different things or	15:05:37
16	not.	15:05:39
17	Q. Okay. Let's look at paragraph 50. You	15:05:51
18	say that "when one suggests that software components	15:05:54
19	and device link agents are different."	15:06:01
20	Do you see that?	15:06:04
21	A. Yes.	15:06:04
22	Q. So -- and this is talking about some	15:06:29
23	software components being authorized to receive and	15:06:32
24	process data from secure link messages received via a	15:06:35
25	device link agent on that device, right?	15:06:38

1	A. It's just the software components in	15:06:42
2	claim 1. I don't know if "some" is a keyword in	15:06:44
3	there or not, but that's what I'm discussing.	15:06:48
4	Q. And then in paragraph 51 you say "one	15:06:52
5	passage from this specification distinguishes	15:06:54
6	software components from agents."	15:06:59
7	Do you -- do you see that?	15:07:01
8	A. I do. And that's exactly right.	15:07:01
9	Q. Okay. And -- and the basis for that is	15:07:03
10	the parenthetical language in -- in the quote or	15:07:05
11	where?	15:07:09
12	A. That's right.	15:07:10
13	Q. All right. And so all of this	15:07:11
14	parenthetical says is "e.g., software component	15:07:18
15	applications and/or agents."	15:07:21
16	Do you see that?	15:07:23
17	A. I do.	15:07:23
18	Q. Okay. So you don't have any opinions	15:07:23
19	about disclaimer either in your declaration or about	15:07:26
20	this part of the specification, do you?	15:07:31
21	MR. BRIGHT: Objection to form.	15:07:35
22	THE WITNESS: I'm not sure what you mean.	15:07:36
23	Q. (BY MR. WANG) That the patentee's	15:07:41
24	disclaiming some meaning or definition of "software	15:07:43
25	components."	15:07:47

1	A. Again, that sounds a little legal, but --	15:07:49
2	a little bit of a legal term, but I'm just saying	15:07:53
3	here's what the patent says and here's where they	15:07:54
4	start to contrast them. So that's distinguishing	15:07:57
5	them, as far as I'm concerned.	15:08:01
6	Q. Okay. And -- but all the parenthetical	15:08:03
7	says is, "For example, software components,	15:08:06
8	applications and/or agents." Right?	15:08:09
9	A. Yes.	15:08:11
10	Q. Okay. But do you read this to mean that	15:08:11
11	agents can't be software?	15:08:14
12	A. It is what it is. It's -- they're saying	15:08:23
13	"software components, applications and/or agents;"	15:08:24
14	and to me, when you break it out like that, you're	15:08:27
15	distinguishing them. Otherwise, you wouldn't break	15:08:30
16	it out like that. I mean, language matters, right?	15:08:32
17	Q. Okay. Well, you agree that applications	15:08:36
18	are software, right?	15:08:38
19	A. I think "in the patent application" seems	15:08:47
20	to be software, yes.	15:08:52
21	Q. All right. And then on page 19 at the	15:08:53
22	very end of paragraph 51, can I have you look at this	15:08:58
23	quote from the stack that you have?	15:09:01
24	A. Okay.	15:09:04
25	Q. And just at the very end of the quote,	15:09:08

1 you just have -- or you quote to "other device-phased 15:09:11
2 functions/software components/agents," right? 15:09:17
3 A. Yes. 15:09:27
4 Q. Okay. And are -- well, what are you 15:09:27
5 reading into that phrase, if anything? 15:09:34
6 A. I'm reading in that they're 15:09:37
7 distinguishing from -- device-based functions from 15:09:39
8 software component and from agents. So there's a 15:09:43
9 distinction there that that's implied, at least 15:09:45
10 that's my understanding of it. 15:09:48
11 Q. Okay. And then in paragraph 52 you say, 15:09:52
12 "Other passages indicate that device agents are 15:09:54
13 software components." 15:09:59
14 Do you see that? 15:09:59
15 A. That's right. Inconsistent again. 15:10:00
16 Q. Okay. But do they define "device agents" 15:10:02
17 as "software components" or say that it can be 15:10:07
18 implemented in software? 15:10:13
19 A. I certainly don't recall those phrases, 15:10:17
20 but what I'm discussing here, as I say, for example, 15:10:21
21 "the specification states that agents can be 15:10:23
22 implemented largely or entirely in software or with a 15:10:30
23 mixture of software and hardware or primarily with 15:10:34
24 hardware," so it's just all over the map there. 15:10:38
25 Q. And in -- and what you quote here, it 15:10:45

1	doesn't use the phrase "software components"?	15:10:46
2	A. No. We're referring to that other	15:10:50
3	passages however indicate that device agents are	15:10:52
4	software components because they mention largely or	15:10:56
5	entirely in software, for example.	15:10:59
6	Q. Okay. But it doesn't use the -- the	15:11:02
7	phrase "software components"?	15:11:04
8	A. No. It's not --	15:11:09
9	Q. Let me put it this way: In paragraph 52	15:11:10
10	you talk about software components because it's not	15:11:13
11	within quotes, and then the material you have in	15:11:15
12	questions doesn't say "software components."	15:11:17
13	A. No, that's not what's in quotes. But I'm	15:11:20
14	talking about software with a mixture of software and	15:11:22
15	hardware and then, of course, oddly enough, primarily	15:11:22
16	with hardware.	15:11:32
17	THE COURT REPORTER: Hey, Mr. Wang, can	15:11:43
18	we go off the record real quick?	15:11:43
19	MR. WANG: Yes.	15:11:45
20	THE VIDEOGRAPHER: We are going off	15:11:46
21	record. The time is 3:11 p.m.	15:11:46
22	(Recess taken)	15:11:48
23	THE VIDEOGRAPHER: We are back on the	15:19:16
24	record. The time is 3:18 p.m.	15:19:16
25	Q. (BY MR. WANG) Welcome back, Dr. Turnbull.	15:19:21

1	Let's go to the last term on page 20 of your	15:19:24
2	declaration, Subsection C, and it's for the '196	15:19:28
3	Patent, claim 13 to the term "wherein one of the	15:19:34
4	message delivery triggers is the receipt of a	15:19:38
5	particular network element message from one of the	15:19:41
6	network elements."	15:19:44
7	Do you see that?	15:19:45
8	A. That's right. For the '192 Patent.	15:19:46
9	Q. Did I read the term correctly?	15:19:49
10	A. I think so. You might have said the	15:19:51
11	"'196 Patent," so I was correcting to '192.	15:19:53
12	Q. Yes, thank you for clarifying, the '192	15:19:59
13	patent.	15:20:02
14	And your opinions for indefiniteness for	15:20:06
15	this term are in paragraphs 56 and 57, right?	15:20:10
16	A. That's right.	15:20:13
17	Q. And then so in paragraph 56 you say that	15:20:15
18	"the claims provide no clarity as to what qualifies	15:20:22
19	as a 'particular network element message'."	15:20:25
20	Do you see that?	15:20:31
21	A. That's right. And it just doesn't.	15:20:31
22	Q. Okay. And so is that your -- your issue	15:20:32
23	with the claim term, that you don't know what	15:20:38
24	"particular" means?	15:20:41
25	A. I would say that's the biggest part of	15:20:44

1	it, yes.	15:20:47
2	Q. Do you agree that "particular" has a	15:21:03
3	meaning in ordinary English?	15:21:04
4	A. Yes.	15:21:09
5	Q. And would that definition be, for	15:21:10
6	example, being unit or one element among others?	15:21:22
7	A. I don't know if that's plain and	15:21:24
8	ordinary. That sounds like a dictionary definition.	15:21:25
9	MR. BRIGHT: Objection: Form.	15:21:27
10	THE WITNESS: Maybe something from set	15:21:27
11	theory.	15:21:30
12	Q. (BY MR. WANG) Okay. What would your	15:21:30
13	definition of "particular" be in normal English, if	15:21:31
14	you have one?	15:21:35
15	A. I don't know. That's a good question.	15:21:35
16	Maybe something that's distinguished in comparison to	15:21:37
17	something else. It's -- you know, "particular" is a	15:21:42
18	pretty good word. I think we all have an idea of	15:21:49
19	what it means, certainly in context.	15:21:53
20	Yeah, I think that's fine just to use it	15:21:55
21	that way, especially since, you know, that's how it's	15:21:58
22	referred to. "Particular network element message," I	15:22:00
23	think that gives me some context that it's not any	15:22:03
24	network element message, it's a particular type of	15:22:07
25	one or a particular one.	15:22:10

1	Q. Okay. And the -- all right. And so --	15:22:26
2	Okay. The word "particular" can be an	15:22:29
3	adjective or a noun, correct?	15:22:32
4	A. Yeah, it could be.	15:22:34
5	Q. And so in the claim, do you agree that	15:22:36
6	they use it as an adjective?	15:22:40
7	A. I think so. I think so.	15:22:42
8	Q. And so the definition I proposed in	15:22:45
9	English for "particular" was "being one unit or	15:22:48
10	elements among others," and I believe that you said	15:22:52
11	that sounded reasonable as a dictionary definition;	15:22:55
12	is that correct?	15:23:01
13	A. I think I said that sounded more like a	15:23:01
14	dictionary definition; and -- but now that I hear it,	15:23:04
15	I don't think it has to be one, it could just be	15:23:07
16	something that's distinguishing it from something	15:23:11
17	else. So there could be, you know, two sets of	15:23:14
18	things, and by say something is particular, it fits	15:23:17
19	in that -- that one set.	15:23:22
20	Q. Okay. So I think I said "being one unit	15:23:27
21	or element among others."	15:23:35
22	A. Okay.	15:23:37
23	Q. Do you think that the patent is using	15:23:38
24	"particular" in a specialized way different from	15:23:42
25	common in English?	15:23:53

1	A. I think when you're talking to a	15:23:57
2	programmer and you're trying to give them	15:23:58
3	instructions on how to build software, of course you	15:24:02
4	have to be exact, you can't be as vague as saying	15:24:06
5	"particular." You need to give that some definition.	15:24:09
6	Again, what do they mean by that, what	15:24:14
7	are the virtues of that? And that's just simply not	15:24:16
8	done here.	15:24:20
9	Q. Okay. So I'm not talking about how to	15:24:22
10	implement it. I'm just focusing on the language or	15:24:32
11	really the word.	15:24:35
12	Do you think that the patent is using the	15:24:37
13	word "particular" in a specialized way, different	15:24:41
14	from how the -- what the word means in common	15:24:46
15	English?	15:24:49
16	A. I think it's common English, but the fact	15:24:52
17	that it's in the context of this -- and my	15:24:54
18	understanding of all of this is I'm trying to	15:24:58
19	describe how software works. That's what this	15:25:00
20	patent's about, and you can use common English, but	15:25:03
21	it's in the context of a particular network element	15:25:07
22	message; and there's just nothing that gives me an	15:25:11
23	idea what that really means. And then, of course,	15:25:15
24	we're talking about it within the context of the	15:25:18
25	message delivery triggers as well, and I think I say	15:25:21

1	that somewhere here.	15:25:24
2	Q. I realize that we skipped a term, so	15:26:06
3	let's go back to another term and we will come back	15:26:08
4	to this term.	15:26:13
5	So could you turn to paragraph 54 of your	15:26:14
6	report --	15:26:17
7	A. Sure, I'm with you.	15:26:18
8	Q. -- or declaration, as we have been	15:26:20
9	discussing.	15:26:23
10	And so this is for claim 11 of the '192	15:26:23
11	Patent. This term that begins "wherein," do -- do	15:26:27
12	you see that?	15:26:31
13	A. I'm with you, yes.	15:26:32
14	Q. Okay. And your opinion for	15:26:33
15	indefiniteness is all in paragraph 54 of your report,	15:26:36
16	right?	15:26:42
17	A. That's right.	15:26:43
18	Q. And really your opinion is stated in one	15:26:44
19	sentence, right, the last sentence of that paragraph	15:26:55
20	beginning with "not only"?	15:26:57
21	A. Sure, that -- that certainly summarizes	15:27:00
22	it.	15:27:03
23	Q. Okay. Because the sentences before just	15:27:03
24	seem to be talking about the claim, but your opinion	15:27:07
25	is in that sentence in paragraph 54?	15:27:10

1	A. That's right. I'm trying to make sense	15:27:14
2	of it, and then that second sentence is my opinion.	15:27:15
3	Q. Okay. Okay. So then there's kind of two	15:27:19
4	parts of the -- the claim or two phrases I want to	15:27:34
5	ask you about.	15:27:44
6	It says "the receipt of a transmission on	15:27:45
7	the respective secure message link."	15:27:56
8	Do you see that phrase?	15:28:02
9	A. No.	15:28:04
10	Q. Okay. Let me start from the beginning.	15:28:06
11	"Wherein one of the message delivery	15:28:08
12	triggers is" and then "the receipt of a transmission	15:28:10
13	on the respective secure message link," do you see	15:28:15
14	that phrase?	15:28:19
15	A. I do see that.	15:28:20
16	Q. Okay. And then -- and then at the end of	15:28:21
17	the term it says "or a response-generated	15:28:24
18	transmission received from that device link agent."	15:28:28
19	Do you see that?	15:28:32
20	A. That's right.	15:28:33
21	Q. And is that what you were referring to	15:28:35
22	at -- in your sentence in paragraph 54 where it says	15:28:42
23	"It's unclear how a response generated to a	15:28:47
24	transmission would be effectively different from the	15:28:50
25	transmission itself"?	15:28:52

1	A. That's exactly right.	15:28:53
2	Q. Okay. What do you mean by "effectively	15:28:55
3	different"?	15:29:01
4	A. I guess exactly that, I don't understand	15:29:05
5	what the -- the differences are there, would it have	15:29:08
6	a different effect whether I'm just getting the	15:29:13
7	response or the transmission itself.	15:29:17
8	Q. Do you agree that those are different	15:29:24
9	things, like the transmission itself and a response,	15:29:26
10	that they're different?	15:29:31
11	A. They should be. We just don't have any	15:29:33
12	clarity here.	15:29:35
13	Q. All right. Do you agree that it's	15:29:36
14	possible to get the transmission itself open but not	15:29:39
15	a response?	15:29:44
16	A. I'm not sure. It would depend on the	15:29:50
17	software. It sounds like this is a response	15:29:53
18	generated to a receipt transmission. So the system	15:29:55
19	would know it got a transmission. It's hard to pull	15:30:01
20	those apart with the claim language we have here.	15:30:06
21	Q. But it doesn't necessarily have to	15:30:11
22	generate a response, right?	15:30:14
23	A system could receive a transmission and	15:30:15
24	either a response is not generated or the generated	15:30:18
25	response is not received, right?	15:30:22

1	A. Just any system or --	15:30:24
2	MR. BRIGHT: Objection.	15:30:26
3	Q. (BY MR. WANG) Yeah, yeah --	15:30:26
4	A. -- in here?	15:30:27
5	Q. I'm talking about any system.	15:30:28
6	A. I guess hypothetically any system, it's	15:30:29
7	possible.	15:30:32
8	Q. All right. And likewise, a system could	15:30:33
9	not receive the transmission itself but only receive	15:30:39
10	a response generated to the transmission. Do you	15:30:43
11	agree with that?	15:30:47
12	MR. BRIGHT: Objection to form.	15:30:49
13	THE WITNESS: I'm not sure that one makes	15:30:49
14	sense, especially in the context of the patent.	15:30:51
15	Q. (BY MR. WANG) What -- why would that not	15:30:55
16	make sense?	15:30:57
17	A. I don't know how you could have a	15:30:58
18	response if you didn't receive something to respond	15:31:00
19	to or to acknowledge that, either that or I	15:31:02
20	misunderstood the wording of your question.	15:31:06
21	Q. But what the system could be looking for	15:31:22
22	is a response generated to a transmission, right,	15:31:25
23	that's what a system could be looking for or be	15:31:27
24	implemented to look for?	15:31:34
25	MR. BRIGHT: Objection to form.	15:31:39

1 THE WITNESS: I guess some hypothetical
2 system, that's possible. I just don't understand the
3 context of how that relates to this.

4 That's one of the reasons you need to be
5 specific when you're describing the functionality in
6 a patent is because there are these large areas of
7 hypothetical system designs. So it seems like the
8 burden is on the inventor, the person filing the
9 patent to be specific, and they're not here.

10 Q. (BY MR. WANG) So for claim 11, the
11 beginning part of the claim talks about "Wherein one
12 of message delivery triggers." Do you see that?

13 A. Yes.

14 Q. And that's not a term that you proposed
15 for construction, right, "message delivery triggers"?

16 A. No.

17 Q. And you don't contend that that phrase
18 alone is indefinite, do you?

19 A. No, I'm not saying that in this
20 declaration.

21 Q. Let's go back to the last term C on claim
22 13, and if you could look at the claim term beginning
23 "wherein." Do you see that?

24 A. Oh, yeah, right at the top of the page.

25 Q. Yeah.

1	A. -- right above paragraph 56.	15:33:31
2	Q. All right. If -- if a system defined or	15:33:32
3	took some action based on a certain message from a	15:33:41
4	network element, would that make it a particular	15:33:55
5	network element message?	15:34:00
6	A. Just any system, not what the patent	15:34:04
7	describes?	15:34:07
8	Q. Sure, sure.	15:34:08
9	A. I guess it would depend.	15:34:09
10	Q. What would it depend on?	15:34:14
11	A. How the system is built.	15:34:16
12	Q. So if a system is designed to look for a	15:34:21
13	certain message or a property of a message, would --	15:34:28
14	would that make it a particular message?	15:34:38
15	MR. BRIGHT: Objection to form.	15:34:42
16	THE WITNESS: Possibly.	15:34:48
17	MR. WANG: That's all I have. So with	15:34:55
18	that, I will pass the witness.	15:34:56
19	Thank you, Dr. Turnbull.	15:34:57
20	MR. BRIGHT: I need a few minutes to look	15:35:02
21	at my notes. Can we take a five to ten-minute break.	15:35:04
22	It may not even be a full ten minutes. I will turn	15:35:07
23	my video back on.	15:35:10
24	MR. WANG: Sure.	15:35:11
25	THE WITNESS: Okay. All right. See ya.	15:35:13

1	THE VIDEOGRAPHER: Going off the record.	15:35:16
2	The time is 3:34 p.m.	15:35:16
3	(Recess taken)	15:42:39
4	THE VIDEOGRAPHER: We are back on the	15:42:40
5	record. The time is 3:42 p.m.	15:42:41
6	MR. BRIGHT: Okay. This is Jonathan	15:42:47
7	Bright with Fish & Richardson. I have no further	15:42:48
8	questions. Thank you.	15:42:51
9	THE VIDEOGRAPHER: And anything else	15:42:56
10	before we close out, Counsel?	15:42:56
11	MR. BRIGHT: Nothing here.	15:42:59
12	MR. WANG: No.	15:43:01
13	THE VIDEOGRAPHER: All right. This marks	15:43:02
14	the end of the description of Dr. John Turnbull. We	15:43:03
15	are going off the record. The time is 3:42 p.m.	15:43:06
16	Central.	15:43:09
17	(Proceedings concluded at 3:43 p.m.)	

18
19
20
21
22
23
24
25

1
2
3
4
5
6
7 I declare under penalty of perjury that the
8 foregoing is true and correct.

9
10 _____
11 DR. DON R. TURNBULL, JR.
12
13

14 SUBSCRIBED AND SWORN TO BEFORE ME, the
15 undersigned authority, by the witness, DR. DON R.
16 TURNBULL, JR., on this the _____ day of
17 _____, 2024.
18

19 _____
20 NOTARY PUBLIC IN AND FOR
21 THE STATE OF _____
22

23 My Commission Expires: _____
24
25

1 STATE OF TEXAS
2 COUNTY OF HARRIS

3
4
5 REPORTER'S CERTIFICATE
6 EXPERT ZOOM ORAL VIDEOTAPED DEPOSITION OF
7 DR. DON R. TURNBULL, JR.
8 May 28, 2024
9

10 I, Michelle Hartman, the undersigned
11 Certified Shorthand Reporter in and for the State of
12 Texas and Registered Professional Reporter, certify
13 that the facts stated in the foregoing pages are true
14 and correct.
15

16 I further certify that I am neither
17 attorney or counsel for, related to, nor employed by
18 any parties to the action in which this testimony is
19 taken and, further, that I am not a relative or
20 employee of any counsel employed by the parties
21 hereto or financially interested in the action.

22 That the deposition transcript was duly
23 submitted to the witness or to the attorney for the
24 witness for examination and signature.
25

1 SUBSCRIBED AND SWORN TO under my hand and
2 seal of office on this 30th day of May, 2024.

3
4 *Michelle Hartman*

5 _____
6 Michelle Hartman, CSR, RPR
7 Texas CSR 7093
8 Expiration: 12/31/25
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

A			
a1 4:3, 63:25 abernathy 2:24 able 59:2, 88:7, 89:4, 89:8, 94:21, 95:13 about 8:24, 13:2, 14:18, 15:10, 16:3, 22:20, 23:25, 24:4, 26:3, 30:18, 31:12, 32:5, 32:23, 33:23, 35:15, 37:1, 37:7, 37:8, 38:15, 38:18, 39:20, 39:21, 41:23, 43:22, 46:5, 47:9, 50:17, 53:6, 58:2, 58:21, 58:25, 59:4, 61:8, 61:15, 63:1, 66:3, 68:11, 70:8, 70:18, 71:1, 72:9, 72:11, 72:13, 73:7, 76:11, 81:19, 82:16, 83:6, 83:11, 83:14, 83:18, 84:20, 86:1, 86:15, 87:9, 91:10, 91:21, 92:4, 92:23, 94:1, 94:2, 94:8, 95:8, 99:24, 100:11, 101:16, 102:14, 102:20, 103:3, 108:18, 109:4, 109:7, 109:20, 113:8,	114:7, 115:20, 116:18, 118:8, 119:15, 119:19, 119:22, 119:23, 122:22, 123:19, 126:10, 126:14, 130:9, 130:20, 130:24, 131:24, 132:5, 134:5, 135:11 above 39:16, 42:24, 43:3, 43:13, 44:1, 45:7, 69:5, 89:18, 91:10, 91:18, 92:5, 102:17, 110:16, 136:1 above-styled 1:23 absolutely 85:2 abstract 65:9, 66:1, 117:8 access 65:15, 66:12, 67:3, 70:14, 77:15, 81:13 accessed 67:3 accordance 81:15, 81:24, 112:1, 112:8 accurately 21:24 accused 24:2, 25:6 acknowledge 104:20, 134:19 acknowledged 78:2 across 40:8 action 65:19, 136:3, 140:18, 140:21 activities 66:24	activity 65:16, 65:17, 66:14, 67:4, 67:5, 69:7 actually 95:11 add 13:8, 27:19, 60:19 added 89:20 adding 59:17, 60:19, 70:21, 71:1, 72:2 addition 35:10, 57:17, 90:19, 96:9 additional 12:13, 13:7, 13:14, 84:5 adjective 129:3, 129:6 adopts 41:17, 42:6, 72:14, 73:10 affect 65:24 affects 59:17, 70:22 after 103:6 afternoon 10:6, 10:7 again 17:25, 21:10, 30:21, 32:21, 32:23, 34:11, 37:22, 42:17, 44:19, 47:8, 58:1, 68:13, 69:8, 84:9, 85:12, 91:20, 92:3, 96:19, 99:7, 99:15, 107:4, 110:5, 113:2, 124:1, 125:15, 130:6	agents 39:16, 40:2, 41:8, 43:13, 51:11, 51:23, 51:24, 57:17, 58:17, 65:13, 66:10, 66:23, 77:23, 77:25, 78:3, 79:12, 79:15, 80:8, 80:11, 83:14, 83:20, 84:21, 89:15, 90:6, 90:9, 91:19, 102:11, 115:20, 116:4, 118:21, 118:22, 119:16, 119:22, 119:24, 119:25, 120:12, 121:3, 121:4, 122:19, 123:6, 123:15, 124:8, 124:11, 124:13, 125:2, 125:8, 125:12, 125:16, 125:21, 126:3 ago 57:1, 84:20 agree 36:12, 37:9, 37:21, 38:12, 39:6, 49:3, 52:21, 54:2, 54:17, 68:23, 70:11, 71:2, 71:25, 77:11, 77:20, 77:22, 78:7, 83:2, 93:2, 93:10, 93:18, 102:7, 108:1, 110:23, 113:23, 117:3, 117:8, 124:17, 128:2, 129:5, 133:8, 133:13, 134:11 agreed 83:3

agreeing 72:19 ahead 10:14, 10:16, 43:2, 48:6 al 5:4 all 5:11, 8:2, 8:3, 9:18, 11:25, 17:25, 20:23, 21:19, 28:1, 28:4, 28:8, 28:14, 28:25, 36:11, 39:13, 41:24, 42:23, 43:3, 44:1, 47:6, 47:21, 48:13, 50:7, 51:25, 53:9, 53:15, 53:23, 56:14, 59:1, 64:19, 67:13, 70:3, 71:8, 73:16, 74:18, 78:21, 79:15, 82:17, 86:6, 86:15, 86:17, 89:7, 92:6, 97:9, 103:14, 104:10, 113:21, 119:7, 123:13, 124:6, 124:21, 125:24, 128:18, 129:1, 130:18, 131:15, 133:13, 134:8, 136:2, 136:17, 136:25, 137:13 allow 107:18 allows 81:12 almost 95:5 alone 37:18, 37:23, 38:2, 135:18	along 10:19, 12:2, 12:6, 13:6 already 113:1, 114:23, 119:17, 120:7 also 2:29, 5:20, 5:23, 10:18, 18:1, 24:7, 28:5, 40:6, 68:6, 73:24, 75:17, 75:22, 79:9, 91:17, 92:3, 92:7, 94:2, 109:17, 122:14 always 24:16, 24:23, 25:7, 25:11 ambiguity 38:22, 38:25, 44:24, 45:15, 73:6, 73:18 ambiguous 39:2, 39:20, 40:25 america 1:12 among 27:12, 128:6, 129:10, 129:21 amount 23:15 analysis 46:4, 46:8 analyzing 52:17, 60:25 angeles 2:7 another 21:14, 28:25, 42:11, 54:14, 56:3, 105:14, 131:3 answer 13:19, 45:14, 46:24, 47:8,	58:24, 59:2, 60:21, 68:24, 69:1, 76:4, 110:10, 120:8 answered 120:7 answers 41:5 any 7:7, 7:11, 8:14, 8:25, 9:16, 9:21, 12:22, 13:3, 13:7, 13:10, 15:17, 16:3, 16:15, 16:20, 16:23, 16:25, 17:4, 20:19, 25:25, 26:6, 26:16, 26:21, 30:25, 45:4, 52:24, 58:21, 60:9, 60:22, 61:4, 61:10, 61:19, 61:22, 67:5, 67:23, 69:7, 80:10, 82:6, 82:11, 82:16, 88:12, 90:20, 94:14, 95:12, 95:25, 96:10, 96:24, 100:4, 103:11, 103:14, 105:5, 110:2, 114:7, 114:17, 115:6, 119:4, 119:7, 119:11, 119:18, 123:18, 128:23, 133:11, 134:1, 134:5, 134:6, 136:6, 140:18, 140:20 anymore 37:8 anything 7:11, 7:15, 15:2, 15:14,	16:7, 43:21, 44:12, 60:16, 61:2, 61:14, 66:3, 67:16, 68:4, 68:17, 86:16, 86:18, 86:19, 87:14, 90:13, 95:5, 97:17, 97:18, 100:1, 101:13, 101:16, 101:17, 101:18, 103:3, 108:19, 109:7, 114:9, 119:25, 120:3, 125:5, 137:9 anywhere 97:5 apart 13:2, 71:5, 74:15, 133:20 api 105:17, 105:19, 105:25, 106:1, 106:24, 107:1, 107:3, 107:4, 107:11, 107:14, 107:22, 107:25 apis 108:3 apologies 76:18 app 7:13, 7:14 appear 11:11, 12:4, 29:14, 29:22, 48:21, 49:1, 49:14, 50:3, 55:11, 113:5 appearances 2:1 appears 30:8 application 18:10, 18:21, 18:22, 18:24, 52:3, 63:24,
---	--	---	---

64:9, 64:23, 65:4, 67:8, 68:18, 104:3, 104:9, 105:20, 106:7, 106:20, 108:16, 108:19, 109:23, 124:19 applications 7:12, 18:19, 18:25, 61:20, 62:22, 106:5, 108:8, 108:24, 109:5, 123:15, 124:8, 124:13, 124:17 applied 34:2, 34:4, 35:8, 35:11 applies 92:22 apply 38:19, 94:5 applying 19:15, 19:24 appropriate 13:13, 21:3 apps 80:9 april 3:25, 11:5, 29:11 architecture 51:5 area 37:2 areas 135:6 aren't 13:14 argument 119:22 around 15:25, 39:7 arrow 70:13 art 16:25, 17:5, 17:10, 21:1,	40:7, 54:3, 57:20, 59:16, 59:23, 60:2, 60:8, 60:11, 60:16, 61:12, 61:22, 91:1, 92:8, 92:12, 95:7 ascertain 37:4, 40:3, 46:11, 78:11, 78:18 ascertainable 90:20, 96:11, 96:16, 96:24 asked 12:20, 13:12, 32:12, 37:1, 71:15, 90:5, 94:20, 100:10 asking 26:5, 26:6, 37:7, 70:8, 74:13, 84:17, 109:7, 110:9 asks 13:18 aspects 50:24 assert 24:23, 25:7 asserted 15:20, 16:10, 16:16, 16:20, 17:1, 17:13, 19:5, 19:8, 50:14, 50:21, 52:18, 56:11, 61:23, 67:9, 68:12, 68:20, 85:1, 94:10 asserts 24:17 assigned 64:16 assist 86:5, 86:7, 86:10, 87:10,	87:13 assisted 34:23 assisting 87:16 assists 86:22, 87:11, 87:20, 88:18, 88:25, 89:5 associated 41:12, 65:19, 70:3 assume 64:21, 101:5, 111:7 assumed 99:12, 100:22 atlanta 2:17, 2:26 attached 1:31 attain 37:4 attending 5:12 attention 62:11, 65:22, 66:18, 89:11, 111:21 attorney 13:17, 33:23, 100:2, 140:17, 140:23 attorneys 8:6 august 2:5, 5:16 austin 17:21 author 63:3, 63:4, 64:13, 64:15 authority 139:15 authorized 122:23 automatically 55:22	aware 16:8, 16:12, 57:10, 61:16, 61:19, 61:22 <hr/> B <hr/> b2 3:27, 3:30 bachelor's 20:3 back 26:18, 31:16, 31:18, 48:1, 48:3, 48:5, 50:8, 50:9, 58:25, 62:25, 70:17, 75:4, 79:1, 79:3, 84:1, 85:12, 98:25, 99:18, 99:20, 100:10, 120:24, 126:23, 126:25, 131:3, 135:21, 136:23, 137:4 background 35:17, 60:24 based 20:16, 35:22, 39:19, 40:1, 42:18, 54:9, 58:3, 60:17, 60:23, 67:21, 68:15, 70:6, 85:23, 86:11, 89:8, 92:16, 114:18, 114:19, 115:7, 117:15, 136:3 basically 92:14 basis 94:25, 123:9 bates 3:34, 55:7 bear 54:25 bears 55:7
--	--	--	---

because 17:18, 48:18, 49:11, 49:24, 51:25, 53:19, 58:9, 63:10, 77:1, 81:21, 83:17, 87:12, 91:4, 92:3, 93:24, 99:2, 101:15, 101:23, 111:19, 115:14, 120:6, 126:4, 126:10, 131:23, 135:6 been 6:8, 20:11, 22:25, 23:13, 23:21, 25:2, 26:19, 31:1, 60:14, 88:21, 89:19, 131:8 before 1:25, 6:19, 8:18, 8:19, 15:10, 21:1, 22:15, 22:19, 29:15, 29:23, 30:9, 30:17, 33:15, 34:17, 40:8, 56:20, 60:8, 60:15, 62:15, 64:11, 71:1, 71:23, 74:13, 75:25, 76:19, 77:17, 77:21, 90:5, 91:18, 92:23, 94:1, 99:6, 100:8, 100:10, 114:7, 131:23, 137:10, 139:14 began 8:10 begin 9:23, 71:13 beginning 14:4, 22:3, 27:5, 44:2,	66:9, 90:23, 131:20, 132:10, 135:11, 135:22 begins 5:1, 27:3, 27:9, 46:16, 102:15, 131:11 behalf 54:13, 56:2 behind 7:14, 8:4 being 45:24, 83:14, 89:8, 95:8, 104:1, 108:11, 112:12, 121:9, 122:12, 122:23, 128:6, 129:9, 129:20 belief 20:20 believe 19:13, 22:21, 32:9, 56:20, 62:9, 67:24, 75:25, 97:11, 111:13, 129:10 bell 32:8, 64:12, 82:9 below 11:21, 66:21 best 13:18, 37:4 bet 33:13, 34:18, 57:14 better 75:7, 121:12 between 17:22, 51:13, 104:21, 104:22, 109:19, 111:3, 111:6 beyond 112:18 bidirectional 51:19, 70:13	big 58:23, 87:23, 95:10, 111:20 bigger 74:19 biggest 127:25 billing 52:1 bit 39:7, 58:8, 68:21, 82:22, 124:2 blank 7:14, 8:9 blue 80:9 blvd 2:6 body 44:15, 54:10, 88:2, 119:13 boilerplate 34:19, 35:1 both 24:1, 24:3, 24:8, 30:23, 68:22, 76:13, 82:21, 93:22, 93:24, 115:13, 116:11, 120:12, 121:13 bottom 116:1, 116:9 boundaries 41:16, 91:4, 101:23, 102:8 box 52:6, 70:1, 74:19, 113:9, 113:10, 114:11, 114:13, 116:11 boxes 114:11, 116:7, 116:9 breadth 35:14, 35:18, 36:6, 36:7,	36:21, 37:3, 37:9, 37:10, 38:1, 85:8, 109:18, 113:17 break 39:8, 48:5, 88:22, 100:2, 100:10, 124:14, 124:15, 136:21 bright 2:13, 5:18, 7:24, 10:3, 12:15, 13:16, 16:5, 16:17, 17:2, 22:13, 24:18, 24:25, 25:9, 25:16, 26:11, 28:17, 32:17, 33:21, 36:9, 36:15, 37:12, 40:23, 42:14, 43:9, 43:18, 44:8, 45:12, 46:22, 47:17, 52:13, 53:2, 53:16, 56:13, 56:23, 57:12, 58:12, 58:22, 60:3, 67:10, 73:19, 75:1, 76:16, 78:5, 79:17, 80:13, 81:23, 83:23, 85:5, 87:22, 88:10, 93:4, 93:20, 94:23, 98:22, 99:14, 100:24, 104:25, 106:11, 106:18, 107:13, 108:21, 109:25, 114:2, 116:16, 116:23, 117:17, 120:13, 123:21, 128:9, 134:2, 134:12, 134:25, 136:15, 136:20, 137:6, 137:7,
--	--	--	---

137:11 broad 18:15, 36:6, 36:13, 37:14, 37:18, 37:23, 69:3, 69:8, 71:12, 71:22, 85:10, 85:17, 95:5, 108:23, 109:3, 109:20 broader 70:4, 121:8 broadly 17:14, 18:16, 35:22, 79:23, 122:13 broken 118:18 build 18:23, 130:3 building 2:24, 18:22 built 136:11 burden 39:23, 39:25, 135:8 bus 41:10 busy 52:1	71:13, 71:21, 85:16, 98:20, 101:11, 122:15, 124:11, 130:4 capability 106:16, 106:24 captured 32:10 career 95:16 carried 107:22 case 1:8, 5:6, 6:15, 7:20, 8:12, 11:13, 12:11, 23:20, 25:11, 33:16, 34:2, 34:17, 35:9, 36:4, 77:19, 87:24, 87:25, 122:14 case-by-case 94:24 cases 23:16, 23:23, 106:3 cause 1:23 caveat 33:22 cec 17:24 centered 12:25 centering 13:3 central 5:9, 137:16 certain 37:16, 54:13, 56:2, 56:7, 84:14, 90:2, 108:8, 136:3, 136:13 certainly 15:22, 22:16, 31:3, 33:14,	35:1, 37:16, 48:24, 71:13, 75:24, 82:15, 97:15, 98:23, 108:1, 108:9, 109:6, 109:22, 112:20, 116:25, 125:19, 128:19, 131:21 certainty 37:5, 40:4, 40:16, 45:4, 46:12, 78:12, 78:19, 93:22, 93:24, 93:25, 96:19 certificate 3:7, 140:5 certified 1:25, 140:11 certify 140:12, 140:16 chance 89:8 change 76:4, 76:20, 138:2 changed 56:22, 57:9 changes 13:4, 138:1 chart 83:21 chat 7:11, 10:21, 11:17, 21:15, 29:2 choose 50:20 chose 53:19 citation 28:9 citations 61:11, 95:25 cite 9:9, 9:14, 54:21, 60:9,	60:22, 97:2, 97:12 cited 61:10, 61:12, 61:22, 61:25, 62:13, 67:13 citing 97:4 civil 1:30 claim 3:18, 3:23, 7:19, 7:22, 11:12, 12:10, 12:23, 21:21, 22:8, 23:10, 29:8, 32:4, 32:5, 36:13, 36:17, 36:18, 37:15, 37:18, 37:23, 38:5, 38:6, 38:15, 38:16, 38:22, 40:1, 40:13, 41:6, 41:8, 44:14, 44:25, 45:2, 45:18, 46:2, 46:9, 46:20, 47:19, 50:22, 50:25, 51:5, 51:7, 57:6, 58:16, 58:19, 59:5, 59:9, 78:18, 82:8, 83:7, 83:19, 83:21, 84:3, 84:7, 84:8, 85:3, 85:24, 89:9, 89:14, 91:3, 91:24, 96:21, 97:8, 98:15, 101:4, 101:22, 102:4, 102:5, 102:7, 102:11, 110:14, 115:16, 116:13, 118:14, 118:15, 120:10,
C			
california 2:7 call 38:21, 111:21 called 17:23, 18:18, 22:21, 65:8, 100:17, 101:2 came 75:25, 83:25 can't 25:1, 26:21, 45:3, 46:11, 67:20, 68:6, 69:1, 69:9,			

123:2, 127:3, 127:23, 129:5, 131:10, 131:24, 132:4, 133:20, 135:10, 135:11, 135:21, 135:22 claimed 35:15 claiming 117:7 claims 9:8, 38:19, 45:15, 50:24, 78:8, 78:10, 78:11, 78:16, 84:17, 84:21, 88:2, 89:18, 89:22, 90:6, 91:10, 92:4, 115:10, 127:18 clarifying 127:12 clarity 127:18, 133:12 class 42:17 clear 38:5, 38:23, 86:20, 86:23, 118:7 clearly 7:16, 69:4, 92:21 client 55:23 close 12:8, 29:1, 30:16, 30:17, 50:7, 137:10 closer 8:20 closing 108:19 code 68:8, 88:8, 88:12, 88:19, 89:3, 89:7, 105:22	column 63:1, 64:25, 81:7, 81:8, 81:9, 111:13, 111:20 com 2:9, 2:19, 2:28 combination 104:17, 106:6 come 20:4, 33:16, 34:18, 35:25, 82:24, 131:3 comes 9:17, 9:24, 12:16, 15:16, 15:18, 26:3, 26:24, 31:15, 32:11, 36:3, 57:13, 60:4, 61:18, 61:21, 62:5, 73:21, 95:22, 97:20, 103:5 comfortable 53:10 comments 118:21 commission 139:23 common 129:25, 130:14, 130:16, 130:20 commonality 121:11 commonly 40:7, 54:3, 57:20 communicate 105:23 communicating 109:19 communication 18:11, 41:10, 51:18, 81:12, 81:22, 82:2, 99:13, 100:23, 102:23, 103:2,	104:21, 105:6, 106:10, 112:7, 112:8, 115:2, 115:3 communications 51:19, 67:1, 104:23, 105:12 communicatively 41:9 compare 64:4, 84:8 comparison 128:16 complaint 14:18, 14:20, 14:23, 14:25, 22:21, 31:8, 48:19, 49:11, 49:25 complete 12:10 completely 7:14 complicated 21:8 complies 6:6 component 69:17, 86:22, 88:16, 88:18, 88:24, 89:5, 118:5, 123:14, 125:8 components 45:8, 88:8, 117:22, 118:4, 118:9, 118:22, 119:23, 119:24, 120:11, 121:2, 121:3, 122:18, 122:23, 123:1, 123:6, 123:25, 124:7, 124:13, 125:2, 125:13, 125:17, 126:1, 126:4, 126:7, 126:10, 126:12 composed 17:16	compound 88:21 comprises 51:11, 65:14, 65:16, 66:11 computer 3:33, 9:10, 9:14, 15:4, 15:6, 17:15, 17:17, 17:22, 17:23, 54:12, 55:6, 55:12, 55:23, 87:20, 88:17, 103:7, 109:21 computerized 1:27 concentrate 40:20 concept 109:21 concepts 122:2 conceptually 103:10 concerned 73:7, 124:5 concert 106:21 concluded 137:17 condition 65:17, 65:20, 66:15 conducting 7:2 configuration 67:4 configured 86:5, 86:10, 87:13 confirm 22:5, 109:13 connection 106:17, 106:25, 107:11, 107:12, 107:15, 109:23, 110:2, 110:4,
--	---	--	---

110:25, 111:3, 111:6, 113:5, 113:12, 113:22, 113:24, 113:25, 117:4, 117:9 consider 16:15, 16:19, 16:25, 77:13, 98:7, 116:12, 118:13 considered 20:18, 31:21, 32:15, 58:5, 77:10, 78:3, 97:11, 97:16, 101:1, 116:25 considering 98:8, 98:9, 112:17, 116:20 consistent 55:25, 81:17 constitute 82:8 constitutes 90:2 construction 7:20, 7:22, 11:12, 12:11, 12:23, 28:1, 32:4, 57:6, 97:8, 101:5, 116:13, 135:15 constructions 3:18, 3:23, 14:14, 14:17, 14:20, 14:22, 21:21, 22:8, 22:20, 29:8, 32:2, 32:10 cont 4:1 contain 12:10, 46:6 contains 83:10 contend 135:17 content 41:13, 86:12	contentions 31:25, 32:3, 32:7, 33:2, 75:19, 75:23, 76:2, 76:9, 76:12, 76:24, 77:6, 77:14, 78:9, 78:17, 82:7 context 35:23, 37:15, 40:9, 54:10, 54:12, 56:11, 57:1, 57:22, 58:2, 69:8, 71:9, 84:2, 84:8, 85:23, 94:12, 94:13, 94:19, 95:1, 103:6, 104:1, 110:8, 113:13, 117:4, 117:14, 128:19, 128:23, 130:17, 130:21, 130:24, 134:14, 135:3 contexts 95:18 continuation 65:3 continue 72:5 contrast 115:8, 124:4 control 41:9, 41:14, 51:12, 51:13, 51:14, 51:17, 52:2, 52:7, 52:16, 52:23, 53:7, 81:13, 99:9, 99:12, 100:17, 100:19, 100:21, 101:5, 111:24, 111:25 controller 51:3, 51:14, 112:1, 112:7,	115:3 controlling 51:19 conventions 115:11 convey 38:21 coordinate 104:20 coordinates 106:8 copy 11:12, 12:5, 48:22, 49:2, 49:15, 50:4, 55:12, 79:7 corporation 64:17 correct 7:20, 11:11, 12:5, 14:15, 14:25, 15:12, 15:13, 19:17, 23:14, 24:12, 27:14, 27:16, 31:22, 32:16, 48:22, 49:2, 49:15, 50:3, 50:14, 55:11, 59:18, 60:11, 60:24, 74:11, 78:12, 78:19, 79:10, 88:5, 97:24, 102:12, 106:10, 110:22, 118:5, 129:3, 129:12, 139:8, 140:14 corrected 101:14 correcting 127:11 corrections 12:23, 13:3 correctly 64:1, 127:9 could 5:13, 11:15,	17:16, 18:1, 18:8, 19:1, 21:15, 22:5, 26:1, 30:25, 35:22, 38:2, 38:18, 39:1, 39:2, 40:3, 42:2, 42:16, 46:12, 47:10, 49:5, 49:19, 50:9, 50:10, 55:3, 55:18, 56:24, 64:4, 67:11, 71:4, 71:16, 77:1, 78:2, 78:11, 78:17, 83:2, 83:3, 87:17, 87:19, 88:11, 88:22, 89:7, 89:10, 92:24, 93:5, 93:7, 93:8, 93:12, 93:14, 93:21, 94:25, 95:5, 97:6, 99:1, 105:13, 105:14, 105:19, 105:22, 106:3, 106:6, 107:7, 107:9, 107:22, 108:1, 108:3, 108:4, 108:14, 108:25, 109:1, 109:5, 109:10, 109:12, 109:14, 109:16, 109:18, 110:16, 111:9, 112:24, 112:25, 113:12, 117:12, 117:16, 117:19, 121:8, 129:4, 129:15, 129:17, 131:5, 133:23, 134:8, 134:17, 134:21, 134:23, 135:22 couldn't 16:22, 61:4,
---	--	---	--

68:1, 82:15, 94:25 counsel 5:13, 5:25, 6:12, 8:1, 9:11, 10:4, 22:12, 33:12, 33:13, 33:16, 34:10, 34:15, 34:18, 34:22, 35:3, 35:25, 76:10, 76:11, 76:16, 76:18, 137:10, 140:17, 140:20 count 48:24 counted 30:9 county 140:2 couple 24:13, 36:7, 99:3 coupled 41:9 course 79:14, 91:9, 91:17, 126:15, 130:3, 130:23 court 1:1, 3:7, 5:5, 6:1, 6:4, 6:10, 7:5, 14:22, 14:24, 15:1, 25:23, 26:9, 31:5, 31:7, 31:10, 76:6, 126:17 court-related 32:21 covered 99:6, 114:6 csr 141:6, 141:7 curious 63:10 currently 12:12, 12:17,	41:25, 60:5 curriculum 3:15 cut 100:9 <hr/> D <hr/> data 67:2, 122:24 dataset 107:17 date 5:8, 19:7, 19:13, 19:15, 19:17, 19:20, 19:21, 20:1, 22:2, 22:11, 29:18, 64:22 dated 3:20, 3:25, 11:5, 21:23, 29:10 dates 57:2 day 1:24, 139:16, 141:2 deadline 8:20 deal 8:1 dealing 104:16 dealt 25:12 declaration 3:12, 7:20, 7:23, 8:5, 8:7, 8:17, 8:22, 9:9, 10:15, 10:20, 11:4, 11:12, 12:3, 12:6, 12:9, 12:14, 12:23, 13:4, 13:22, 14:7, 14:9, 14:12, 16:7, 17:6, 30:20, 31:16,	32:19, 45:2, 48:23, 49:9, 49:16, 49:23, 50:5, 50:10, 53:21, 54:6, 59:13, 61:9, 61:13, 61:15, 70:18, 72:6, 73:24, 74:7, 75:14, 79:6, 80:4, 82:18, 82:21, 82:25, 83:1, 86:25, 90:15, 90:16, 97:5, 97:12, 97:15, 99:2, 99:5, 101:20, 102:18, 103:6, 112:13, 116:17, 116:21, 119:8, 123:19, 127:2, 131:8, 135:20 declare 139:7 default 103:23 defendant 1:15, 24:9 defendants 2:11, 5:19, 24:1, 24:6, 25:6 defended 24:7 define 44:25, 57:3, 75:6, 91:4, 101:23, 102:8, 117:13, 125:16 defined 45:2, 70:1, 136:2 definite 85:19 definition 54:20, 55:15, 55:18, 123:24, 128:5, 128:8, 128:13, 129:8,	129:11, 129:14, 130:5 definitions 15:11, 54:5, 54:22, 56:15, 56:25, 73:12, 73:14 degree 17:16, 17:20, 20:3, 93:24, 96:17 degrees 17:25 delivered 41:14 delivery 46:16, 47:2, 127:4, 130:25, 132:11, 135:12, 135:15 depend 37:14, 37:25, 71:9, 73:20, 83:13, 84:9, 94:11, 94:18, 103:25, 106:13, 107:1, 107:4, 107:14, 114:1, 114:3, 133:16, 136:9, 136:10 depending 17:20 depends 36:16, 95:1, 108:15 depo 48:12 depos 5:11, 6:2 deposition 1:16, 1:20, 5:2, 5:12, 7:2, 9:6, 10:2, 11:4, 13:14, 22:13, 30:20, 140:6, 140:22 depositions 23:19
--	--	--	--

<p>describe 52:22, 75:16, 103:9, 104:7, 104:11, 115:13, 116:4, 121:13, 130:19</p> <p>described 15:2, 51:17, 52:15, 53:7, 58:2, 66:20, 77:24, 79:19, 80:6, 104:1, 111:8, 114:20</p> <p>describes 40:12, 103:13, 113:17, 120:11, 136:7</p> <p>describing 68:22, 95:2, 105:10, 113:9, 135:5</p> <p>description 3:10, 4:2, 19:4, 35:16, 53:19, 81:2, 85:24, 97:7, 101:11, 111:12, 111:16, 111:22, 116:19, 137:14</p> <p>designated 69:17</p> <p>designations 68:8</p> <p>designed 136:12</p> <p>designs 135:7</p> <p>desktop 7:14</p> <p>detail 66:21</p> <p>detected 66:15</p> <p>detecting 65:16</p> <p>determine 40:9, 45:16, 46:4, 84:14,</p>	<p>87:15, 87:19, 88:18, 88:24, 89:4, 94:21, 95:13</p> <p>determined 86:21, 90:11</p> <p>determining 20:18</p> <p>device-based 125:7</p> <p>device-phased 125:1</p> <p>devices 43:1, 44:3, 66:22, 67:2, 102:16, 102:22, 103:2, 103:11, 103:15</p> <p>diagram 74:23, 75:13, 81:11, 111:23, 112:5</p> <p>diagramming 115:11</p> <p>diagrams 115:13, 115:15</p> <p>dictionaries 9:10, 9:14, 9:18, 15:4, 15:6, 57:2</p> <p>dictionary 3:33, 15:11, 54:19, 54:22, 55:6, 55:12, 61:5, 73:11, 128:8, 129:11, 129:14</p> <p>difference 104:22, 120:15</p> <p>differences 133:5</p> <p>different 17:19, 35:21, 38:7, 38:15, 38:23, 42:21, 43:16, 43:22, 51:24, 54:5, 57:10, 57:15,</p>	<p>63:20, 67:18, 67:24, 68:5, 68:19, 70:2, 70:4, 77:25, 84:7, 85:17, 92:17, 98:19, 103:9, 107:19, 108:3, 108:24, 109:4, 115:14, 115:15, 118:23, 119:25, 120:12, 120:23, 121:4, 121:9, 121:12, 121:14, 121:17, 121:20, 121:23, 121:24, 122:1, 122:2, 122:3, 122:7, 122:12, 122:15, 122:19, 129:24, 130:13, 132:24, 133:3, 133:6, 133:8, 133:10</p> <p>difficult 88:24</p> <p>difficulties 44:16, 100:7</p> <p>directing 20:12</p> <p>direction 8:3</p> <p>disagree 45:25</p> <p>disclaimer 82:8, 82:15, 123:19</p> <p>disclaiming 123:24</p> <p>disclosed 65:13, 66:10</p> <p>discloses 51:10</p> <p>disclosing 50:17, 79:22</p> <p>discuss 44:15, 45:22, 48:23, 49:16, 50:16, 50:20,</p>	<p>76:10, 98:10, 100:1, 112:15, 116:12, 119:10</p> <p>discussed 15:5, 15:15, 32:20, 35:3, 43:20, 43:25, 50:4, 71:23, 89:18, 112:13</p> <p>discussing 9:23, 37:5, 41:2, 45:14, 53:20, 59:20, 89:19, 98:16, 103:8, 116:20, 123:3, 125:20, 131:9</p> <p>discussion 44:10, 91:10, 92:5, 92:6, 92:21, 94:5</p> <p>discussions 100:4</p> <p>display 1:13</p> <p>displayed 108:11</p> <p>distinct 27:18</p> <p>distinction 125:9</p> <p>distinguished 128:16</p> <p>distinguishes 123:5</p> <p>distinguishing 124:4, 124:15, 125:7, 129:16</p> <p>district 1:1, 1:2, 5:5</p> <p>division 1:3, 5:6</p> <p>document 3:20, 3:25, 3:32, 11:6, 12:1, 12:3, 14:24, 15:1, 21:22, 21:23,</p>
---	---	---	---

21:25, 22:2, 22:3, 22:11, 22:15, 22:22, 22:25, 23:5, 29:7, 29:9, 29:10, 29:15, 45:16, 48:20, 49:10, 49:13, 49:23, 55:6, 63:14, 111:20 documents 7:7, 14:22, 30:19, 30:25, 31:2, 31:4, 31:5, 31:7, 31:13, 32:22, 61:16, 62:17, 76:6 doing 15:23, 17:3, 17:7, 18:22, 26:19, 59:6, 60:14, 75:7, 97:13, 98:12, 108:2 don 1:17, 1:21, 3:3, 3:12, 3:15, 5:2, 6:7, 11:4, 12:1, 30:13, 139:11, 139:15, 140:7 done 75:7, 130:8 down 40:5, 85:13, 85:15, 88:22 download 10:23, 21:15, 48:11, 55:3, 63:18 downloaded 11:9, 11:22, 48:13, 63:19 dozen 6:22, 23:22 dr 1:17, 1:20,	3:3, 5:2, 6:7, 6:14, 7:19, 10:14, 11:3, 11:8, 12:4, 12:9, 21:13, 21:24, 23:13, 40:20, 44:19, 45:5, 48:3, 48:23, 49:9, 49:16, 49:23, 50:5, 50:10, 65:21, 79:4, 99:21, 120:18, 126:25, 136:19, 137:14, 139:11, 139:15, 140:7 draft 8:7 drafted 34:23 drafting 34:23 drives 61:7 drops 99:17 due 8:18 duly 1:22, 6:8, 140:22 during 100:2 <hr/> E <hr/> e 66:12, 123:14 e-mail 2:9, 2:19, 2:28 each 41:11, 66:22, 112:21 earlier 14:17, 15:5, 83:14 earliest 19:22 eastern 1:2, 5:5	education 21:10 effect 133:6 effectively 132:24, 133:2 effort 37:4, 40:11, 51:2 eight 13:24, 14:6, 27:6, 27:13, 30:3 either 15:24, 17:7, 36:24, 98:12, 101:8, 120:7, 123:19, 133:24, 134:19 electrical 17:17, 17:22, 17:23 electronics 1:10, 1:11, 5:4 element 47:3, 54:14, 56:3, 127:5, 127:19, 128:6, 128:22, 128:24, 129:21, 130:21, 136:4, 136:5 elements 47:4, 79:10, 92:15, 92:17, 127:6, 129:10 elicit 22:18 eliminate 41:7 else 9:17, 15:2, 15:14, 15:16, 15:18, 21:5, 31:12, 35:23, 61:2, 61:14, 66:5, 68:9, 73:9, 73:13, 73:22, 120:1,	120:3, 128:17, 129:17, 137:9 elsewhere 61:13, 97:12 emanuel 2:23, 5:23 embodiment 53:15, 65:14, 82:4 embodiments 66:11, 81:15, 81:25, 112:1, 112:9 employed 140:17, 140:20 employee 140:20 enable 104:20 encompass 118:21, 119:23, 121:2 encompasses 121:7, 121:10, 122:11 encrypt 113:8, 113:9, 113:18, 113:19 encrypted 113:24, 113:25 end 22:3, 51:11, 58:11, 91:15, 101:21, 107:16, 110:20, 124:22, 124:25, 132:16, 137:14 end-user 91:6, 101:24 ending 64:8 enforce 66:24 enforced 67:1 engineering 17:17, 17:23, 17:24, 18:3,
--	--	--	---

18:5 english 128:3, 128:13, 129:9, 129:25, 130:15, 130:16, 130:20 enough 40:9, 40:14, 73:3, 113:20, 126:15 entire 45:1, 83:11, 89:13 entirely 115:14, 125:22, 126:5 entitled 3:32, 12:1, 29:7, 55:6 environment 21:9 equivalent 99:13, 100:22, 101:6 especially 35:15, 54:9, 85:23, 109:19, 115:8, 128:21, 134:14 essentially 69:6 establishes 51:18 et 5:4 even 7:1, 17:21, 18:2, 22:2, 54:4, 59:2, 69:2, 69:3, 70:6, 71:13, 76:25, 82:13, 94:15, 107:15, 107:18, 136:22 ever 25:13, 40:8, 60:7, 60:16 every 27:25, 74:10,	75:16 everything 8:4, 37:16, 75:16 evidence 3:19, 3:24, 15:17, 21:22, 22:9, 28:5, 28:7, 28:11, 28:15, 29:9, 38:8, 60:9, 60:13, 60:22, 61:11, 77:6 exact 130:4 exactly 9:15, 51:8, 64:18, 73:8, 89:24, 90:4, 123:8, 133:1, 133:4 examination 3:4, 6:9, 140:24 example 17:21, 18:4, 18:8, 20:6, 32:24, 36:24, 47:14, 47:19, 50:23, 55:22, 56:7, 56:22, 57:11, 66:25, 67:21, 69:2, 71:10, 77:3, 78:4, 81:25, 82:3, 88:9, 89:3, 95:7, 95:12, 95:17, 95:19, 108:11, 108:18, 115:20, 119:3, 119:6, 124:7, 125:20, 126:5, 128:6 examples 25:18, 57:16, 59:1, 107:20, 119:4, 119:11 exceed 20:10	exception 25:2 exceptionally 118:12 excerpt 55:12 exclusive 121:15, 122:5 exclusively 18:20 executable 91:5, 101:24 execute 51:10 executing 65:18 exhibit 3:10, 3:12, 3:15, 3:17, 3:22, 3:26, 3:27, 3:30, 3:32, 4:2, 4:3, 10:15, 10:16, 10:17, 10:22, 10:24, 11:4, 11:7, 11:15, 11:18, 12:1, 12:8, 12:10, 21:14, 21:16, 21:17, 21:20, 29:1, 29:3, 29:5, 29:7, 29:16, 30:16, 31:18, 31:19, 48:10, 48:12, 48:14, 48:15, 48:16, 48:18, 49:4, 49:6, 49:8, 49:9, 49:10, 49:11, 49:18, 49:20, 49:22, 49:24, 55:1, 55:3, 55:4, 55:5, 55:19, 62:8, 63:13, 63:15, 63:16, 63:20, 63:23, 64:3,	64:11, 67:16, 68:15, 68:18, 69:11, 80:23, 80:24, 111:10 exhibits 3:9, 4:1, 10:20, 11:3, 48:7 exist 16:12 existed 21:1, 77:18 expand 36:25 experience 18:10, 20:4, 20:9, 20:22, 20:25, 25:11, 34:4, 35:11, 60:14, 60:18, 60:24, 61:6, 92:16 expert 1:16, 1:20, 104:12, 140:6 experts 28:21, 30:12 expiration 141:8 expires 139:23 explore 36:20 expressing 93:13 extend 105:14 extent 87:5 extra 92:19 extrinsic 3:19, 3:24, 15:17, 21:21, 22:8, 28:5, 28:6, 28:11, 28:15, 29:8, 77:6, 77:8
---	--	---	--

F			
face	51:22, 51:24,	find	86:9, 110:14
62:22, 67:14	52:1, 52:5,	15:24, 61:4,	focusing
fact	52:23, 53:3,	63:10, 88:23,	130:10
36:12, 37:18,	53:11, 53:14,	103:3	follow
37:23, 53:10,	53:18, 66:21,	finding	88:7, 88:11,
59:20, 89:17,	69:10, 69:17,	14:9	88:19
130:16	69:25, 70:5,	fine	following
factors	70:14, 74:10,	14:3, 33:4,	23:11, 44:10,
20:18, 20:19	74:15, 74:16,	39:10, 42:22,	44:12, 62:21,
facts	75:16, 77:21,	128:20	89:2
140:13	79:7, 79:9,	firm	follows
fair	79:16, 79:21,	5:16, 5:23	6:8
19:4, 73:9	80:2, 80:5,	first	foregoing
fairly	80:7, 80:16,	6:8, 8:7, 8:9,	139:8, 140:13
104:2	80:17, 81:2,	10:20, 10:24,	forgotten
faith	81:10, 81:20,	23:12, 28:7,	14:18
40:11, 46:3,	89:8, 99:1,	28:8, 30:1,	form
46:7	100:11, 100:15,	31:11, 39:8,	7:24, 12:15,
far	101:3, 101:14,	39:15, 40:19,	13:16, 16:5,
26:18, 28:4,	101:15, 101:16,	48:14, 48:18,	16:17, 17:2,
43:2, 124:5	112:4, 112:5,	49:10, 49:23,	24:18, 24:25,
feature	112:22, 113:4,	53:23, 64:1,	25:9, 25:16,
103:13	113:6, 113:10,	64:25, 67:19,	26:11, 28:17,
federal	113:17, 114:8,	67:22, 68:4,	32:17, 33:21,
1:29	114:18, 114:20,	68:16, 69:23,	36:9, 36:15,
feel	114:22, 114:24,	71:2, 72:11,	37:12, 40:23,
33:18, 39:23,	115:7, 115:9,	102:20, 102:21,	42:14, 43:9,
44:23, 87:17,	115:16, 115:17,	110:3, 110:9,	43:18, 44:8,
120:6	115:19, 116:9,	117:21	45:12, 46:22,
few	116:13	fish	47:17, 52:13,
15:11, 84:12,	figures	2:15, 5:19,	53:2, 53:16,
136:20	12:25, 80:19,	5:21, 137:7	56:13, 56:23,
field	111:13, 111:22,	fit	57:12, 58:12,
17:12, 17:18,	112:12, 112:20,	17:25, 20:8	58:22, 60:3,
18:2, 18:4,	116:19	fits	67:10, 73:19,
19:5, 67:9,	file	17:15, 76:5,	75:1, 76:10,
67:17, 67:18,	9:8, 97:9,	129:18	78:5, 79:17,
67:24, 67:25,	101:13, 101:18	five	80:13, 81:23,
68:5, 68:7,	filed	18:9, 20:4,	83:23, 85:5,
68:10, 68:19,	16:9, 48:19,	20:5, 20:21,	87:22, 88:10,
94:10, 94:15,	64:24, 65:4	26:25, 27:3,	93:4, 93:20,
95:7	files	27:6, 65:22,	94:23, 98:22,
figure	48:8	66:6, 66:8,	99:14, 100:24,
13:3, 50:17,	filing	76:19, 76:22,	104:25, 106:11,
50:20, 50:23,	135:8	136:21	106:18, 107:13,
51:9, 51:12,	filling	floor	108:21, 109:25,
	8:10	2:6, 2:16	114:2, 116:16,
	financially	focus	116:23, 117:17,
	140:21	17:20, 44:20,	

120:13, 123:21, 128:9, 134:12, 134:25, 136:15 formatting 13:1, 22:17, 30:22, 31:10, 32:23, 76:7 formed 12:13 forming 17:1 forth 33:19, 34:14, 35:6, 44:22, 45:19, 45:24, 46:8, 46:10, 46:19, 47:6, 73:18 forwards 91:6, 101:25 found 14:1, 25:15, 25:23, 26:9, 26:23, 83:20, 90:7 four 23:4, 23:7, 29:20, 62:12, 119:9 fourth 62:3 frame 19:11, 19:25, 56:19, 112:7, 112:8, 115:2, 115:3 framework 18:16 framing 112:6 friday 9:11, 10:1, 10:6 full 136:22 function 56:7, 56:8, 115:21, 115:22,	115:23, 115:24 functional 74:23, 75:12, 81:11, 111:23, 112:5, 115:13 functionality 79:23, 82:5, 84:25, 103:9, 107:21, 108:5, 108:7, 135:5 functions 54:13, 56:2, 115:14, 125:2, 125:7 further 51:12, 65:16, 66:21, 137:7, 140:16, 140:19 <hr/> G <hr/> ga 2:26 gave 33:13, 58:17, 107:21 general 14:8, 84:24, 102:7, 110:9, 110:13 generally 18:15, 25:3, 105:13, 108:4, 110:12 generate 133:22 generated 132:23, 133:18, 133:24, 134:10, 134:22 generic 22:18, 41:15, 94:12, 118:12 georgia 2:17 getting 133:6 giant 71:7	give 7:3, 12:21, 18:15, 39:21, 39:24, 40:9, 42:11, 56:15, 57:3, 58:24, 62:6, 69:1, 71:10, 74:1, 82:15, 95:6, 95:12, 98:13, 111:17, 113:19, 130:2, 130:5 given 56:19 gives 42:15, 42:19, 68:22, 128:23, 130:22 giving 35:9, 37:4, 43:8, 59:21, 97:16 glance 29:17 go 10:14, 10:16, 13:6, 31:16, 40:10, 47:21, 48:6, 48:8, 51:16, 58:25, 72:8, 76:21, 78:21, 84:1, 89:10, 100:9, 117:20, 120:24, 126:18, 127:1, 131:3, 135:21 goal 75:15 going 11:2, 21:13, 26:18, 29:6, 34:8, 39:7, 39:9, 47:23, 48:6, 48:7, 78:23, 100:9, 126:20, 137:1, 137:15 good 6:13, 14:4,	38:17, 38:25, 40:10, 46:3, 46:7, 59:19, 99:25, 128:15, 128:18 gosh 25:20 graduate 20:13 grammatically 65:25 great 8:1 guess 12:19, 16:22, 18:18, 32:3, 35:21, 41:1, 41:5, 42:16, 58:8, 63:5, 68:23, 70:1, 73:10, 73:20, 75:4, 77:8, 79:23, 82:3, 96:8, 99:24, 104:3, 104:15, 104:16, 106:12, 107:1, 107:25, 110:5, 114:15, 115:13, 117:12, 117:18, 122:4, 133:4, 134:6, 135:1, 136:9 guessed 8:23 guidance 38:9 <hr/> H <hr/> habit 82:20 hand 6:5, 6:11, 141:1 happen 117:16 happened 26:1 happy 110:7
--	---	---	---

hard 67:12, 72:3, 93:23, 133:19 hardware 125:23, 125:24, 126:15, 126:16 harris 140:2 hartman 1:25, 6:2, 140:10, 141:6 head 80:19, 88:14, 95:15, 98:6, 98:24, 104:5, 104:13 heading 39:14, 39:16, 44:3, 110:15 heads 76:19 headwater 1:4, 5:3, 5:16, 6:15 headwater's 31:25, 32:6, 33:2, 48:19, 75:18, 75:20, 75:22, 76:24, 77:13, 78:9, 78:16, 82:7 hear 83:25, 129:14 heard 25:14, 26:8 help 44:25, 57:3, 68:14, 78:20, 91:4, 101:22, 102:8 helpful 70:6 hence 118:7 here 5:1, 8:1, 11:23, 12:22, 13:7, 13:9,	17:16, 17:25, 19:18, 20:9, 20:15, 20:25, 21:18, 26:3, 26:21, 28:3, 28:19, 31:25, 32:16, 33:8, 34:3, 37:5, 38:21, 39:3, 40:1, 40:6, 42:5, 43:20, 43:25, 44:24, 48:13, 50:13, 51:8, 53:5, 53:6, 53:19, 54:6, 54:11, 56:17, 56:19, 58:24, 59:7, 59:10, 60:6, 60:17, 62:6, 71:14, 71:21, 72:19, 73:24, 74:4, 76:8, 80:7, 80:15, 82:12, 83:6, 83:17, 83:18, 84:11, 84:23, 85:13, 85:21, 86:20, 87:4, 87:17, 87:24, 90:16, 90:18, 90:23, 92:7, 92:22, 93:2, 93:6, 93:7, 93:9, 93:13, 95:22, 96:8, 96:23, 97:16, 97:18, 97:20, 98:13, 101:20, 102:10, 114:25, 118:11, 118:17, 119:5, 119:10, 122:3, 125:20, 125:25, 130:8, 131:1, 133:12, 133:20, 134:4, 135:9, 137:11 here's 124:3	hereto 1:31, 140:21 hey 79:5, 126:17 hi 99:22 higher 89:7 highlight 74:9, 80:11 highlighted 72:10, 74:16, 74:18, 77:21, 77:22 highlighting 79:13 histories 14:14, 15:20, 16:4, 97:9 history 9:8, 97:2, 97:5, 97:18, 101:13, 101:18 honest 69:22, 70:15 hope 35:7, 72:3, 82:22, 102:9 hour 10:8 hours 8:21, 9:3, 10:8, 10:10 however 126:3 hundred 9:1 hung 65:24 hypothetical 58:20, 58:24, 59:4, 71:7, 71:12, 87:23, 135:1, 135:7 hypothetically 108:23, 109:8, 110:5, 117:11, 117:18, 134:6	I idea 8:14, 8:25, 33:16, 35:21, 38:21, 46:10, 73:4, 88:20, 128:18, 130:23 ideas 32:4, 51:2 identifiable 41:11 identification 75:11 identified 27:21, 44:13, 70:9, 74:14, 74:22, 119:1 identifier 41:12 identifies 23:10, 28:21, 30:12 identify 5:13, 40:21, 43:7, 43:16, 44:6, 44:20, 45:10, 79:10, 119:11, 120:1, 120:3 identifying 42:1 illustrated 66:23 illustrates 80:7, 81:21 illustrating 81:11, 82:2, 111:23, 112:5 implement 130:10 implementation 18:11, 18:21, 19:3, 52:4 implemented 125:18, 125:22, 134:24 implementing 81:12
--	---	--	---

implied 125:9 implies 37:2, 109:17, 111:5 imply 32:4 imprecise 46:11 inc 1:12 include 15:8, 38:16, 66:22, 85:17, 95:25, 108:8, 108:11 included 32:2, 58:10 including 30:13, 68:16, 69:4, 120:11, 122:4 inclusion 32:23 inconsistent 122:11, 125:15 indefinite 25:15, 25:22, 25:24, 26:10, 26:23, 28:2, 36:14, 37:19, 37:24, 38:2, 46:3, 59:8, 59:9, 83:15, 83:20, 83:22, 84:6, 84:10, 85:4, 85:11, 85:14, 85:23, 86:3, 86:8, 86:16, 86:17, 86:19, 87:1, 87:11, 87:12, 90:8, 90:9, 90:12, 96:4, 96:7, 96:16, 96:18, 103:3, 135:18 indefiniteness 33:9, 36:8,	36:21, 36:22, 37:11, 58:21, 83:11, 89:14, 127:14, 131:15 independent 84:5, 90:15 index 3:1 indicate 125:12, 126:3 indication 68:22 individually 27:15 industrial 18:2, 18:5 industry 18:19 influence 20:24 inform 41:15, 75:2, 97:19, 113:11 information 17:14, 18:1, 18:17, 22:20, 69:5, 73:4, 113:20 informed 55:23 informs 21:11 infringed 24:17, 24:23, 25:8, 28:22 infringement 31:25, 32:3, 32:7, 33:2, 75:18, 75:23, 76:2, 76:11, 76:24, 77:6, 77:14, 78:9, 78:16, 82:7 infringers 24:2, 25:7 innovation 21:7 innovations 21:3	inside 69:25 installations 67:4 instance 1:22 instances 26:22 instead 59:5 instructions 106:9, 106:16, 130:3 intend 13:10 inter 105:25 interchangeably 82:22 interest 63:11 interested 140:21 interface 52:3, 84:25, 85:7, 85:22, 86:3, 86:11, 88:5, 105:17, 105:20, 105:25, 106:1, 106:24, 107:11, 107:22, 107:25 internal 74:22, 75:12 international 64:17 internet 3:34, 55:7, 55:13, 91:7, 102:1, 104:15 interpretation 42:3, 75:20 interpretations 43:23, 44:7, 44:14, 45:11, 45:18, 46:20, 47:15, 119:1, 119:20	interpreted 38:6 intrinsic 38:8 introduce 10:15, 11:2, 21:14, 28:25, 29:7, 48:6, 49:8, 49:22, 54:24, 54:25, 55:2 introducing 11:25, 21:20, 48:16, 55:5, 63:23 invalid 25:8 invented 36:2 invention 57:7, 77:13 inventor 135:8 invoked 106:1, 106:4 involved 23:13, 23:21, 25:2 involvement 23:17 ipr 16:9, 16:20, 16:23, 24:8 iprs 16:15 isolation 57:19, 85:4 issue 13:2, 42:1, 87:9, 119:19, 127:22 issues 33:15, 45:22, 53:6 item 74:10, 99:8, 100:16, 100:17 items 74:14, 74:18
---	--	---	---

itself 52:22, 57:19, 57:24, 61:1, 79:14, 80:2, 94:2, 94:3, 94:9, 96:4, 103:12, 132:25, 133:7, 133:9, 133:14, 134:9 <hr/> J <hr/> jang 2:22, 5:22, 10:3 jbright@fr 2:19 job 75:7 john 137:14 jonathan 2:13, 5:18, 137:6 jr 1:17, 1:21, 3:3, 6:7, 139:11, 139:16, 140:7 jrg 1:9, 5:7 jump 17:8, 39:7, 42:23, 43:12, 66:4 jumped 43:2 jury 25:23, 26:9 <hr/> K <hr/> kabat 2:5, 5:16 keep 39:9, 55:23 kevin 2:22, 5:22 kevinjang@quinne- manuel 2:28	key 15:24 keyword 123:2 keywords 70:2 kind 18:2, 18:16, 21:8, 21:10, 26:13, 26:17, 51:4, 57:22, 69:25, 74:12, 109:17, 110:2, 111:5, 132:3 know 9:24, 13:6, 14:10, 16:23, 17:19, 17:21, 18:17, 18:25, 19:1, 19:7, 20:12, 20:24, 21:1, 25:10, 26:18, 31:10, 32:1, 32:13, 34:23, 36:3, 36:5, 37:15, 39:11, 40:10, 42:18, 44:5, 50:8, 53:5, 57:5, 57:8, 57:10, 57:15, 58:14, 60:18, 63:3, 64:13, 64:15, 64:18, 64:19, 67:22, 68:7, 69:3, 69:4, 70:4, 70:16, 76:23, 77:1, 77:2, 77:12, 77:15, 78:20, 80:16, 83:24, 85:17, 86:6, 87:3, 88:12, 88:22, 90:18, 94:12, 95:20, 95:21, 96:17, 98:4, 98:24, 99:11,	100:25, 101:11, 101:14, 103:19, 105:8, 107:16, 107:17, 107:19, 109:6, 115:18, 116:6, 117:1, 118:15, 119:18, 120:19, 122:4, 123:2, 127:23, 128:7, 128:15, 128:17, 128:21, 129:17, 133:19, 134:17 known 40:7, 54:3, 59:16, 59:22, 60:2, 60:8, 60:11, 61:12, 70:21, 90:25, 92:8, 92:12 <hr/> L <hr/> lab 63:6 lack 93:22 language 41:6, 86:9, 87:1, 89:9, 91:3, 101:22, 102:4, 102:5, 102:8, 102:11, 103:1, 103:4, 110:14, 110:19, 123:10, 124:16, 130:10, 133:20 large 15:23, 19:1, 21:9, 135:6 largely 125:22, 126:4 last 9:11, 30:6, 41:20, 46:25, 69:6, 72:12, 72:23, 104:16, 121:1, 127:1, 131:19, 135:21	later 29:14, 29:18, 57:15 law 5:15, 5:23, 7:5 layer 110:22, 110:25 layer's 104:9 layers 103:8, 104:3, 104:10, 105:23 least 14:21, 20:3, 32:3, 32:4, 33:16, 34:20, 36:18, 37:16, 39:4, 42:25, 44:2, 59:24, 65:15, 65:17, 65:18, 66:13, 66:14, 69:5, 78:2, 84:11, 102:15, 102:22, 103:1, 105:20, 115:9, 119:3, 125:9 leave 41:16, 72:13 leaves 42:5, 72:21, 73:4, 74:4 lee 2:14, 5:20 legal 33:8, 33:19, 34:9, 34:13, 36:1, 82:14, 97:7, 124:1, 124:2 length 40:18, 115:22, 115:23 less 9:1, 70:6, 96:16 let's 26:25, 27:8,
---	---	---	---

31:16, 39:13, 42:23, 43:12, 47:21, 53:22, 59:12, 70:17, 72:5, 72:8, 74:6, 78:21, 86:9, 89:10, 94:8, 111:12, 112:22, 114:22, 117:20, 120:24, 122:17, 127:1, 131:3, 135:21 level 14:5, 17:9, 20:19, 21:10, 68:11, 104:3, 111:7 levels 104:4, 105:23 light 35:16, 78:8, 78:16 likely 25:21, 26:1, 30:22, 34:25, 77:4 likewise 134:8 limitation 96:20, 118:14 line 138:2 link 41:10, 41:14, 51:13, 51:15, 51:17, 51:18, 52:7, 52:16, 52:23, 53:6, 53:7, 99:9, 99:12, 100:17, 100:19, 100:21, 101:6, 111:24, 111:25, 118:21, 120:12, 122:19, 122:24, 122:25, 132:7, 132:13, 132:18 list 31:24, 62:13,	62:21, 97:10 listed 34:3, 62:22, 101:10 lists 27:10, 27:13, 28:5 literally 96:23 litigation 23:14, 23:22, 24:16, 24:22, 25:6 little 10:9, 58:8, 68:21, 82:22, 124:1, 124:2 llc 1:4, 5:3, 5:17 llp 2:23 located 81:20 logical 103:8 logically 109:17 long 10:5, 44:6, 48:20, 53:18, 62:13, 78:13, 84:25 longer 46:15, 118:14 look 14:17, 22:4, 22:5, 29:19, 29:25, 39:13, 57:18, 60:5, 69:4, 69:10, 77:1, 79:19, 81:1, 84:1, 84:8, 90:13, 97:9, 98:25, 100:12, 110:7, 110:17, 111:12, 112:22, 114:22, 120:22, 122:17,	124:22, 134:24, 135:22, 136:12, 136:20 looked 9:10, 29:15, 29:23, 31:3, 32:20, 33:14, 67:22, 67:23, 68:1, 68:3, 68:16, 68:21, 76:6, 77:9, 77:21, 98:15, 99:16, 112:18 looking 16:1, 22:1, 30:17, 32:22, 40:13, 57:6, 57:11, 64:5, 67:12, 69:2, 69:22, 70:6, 73:21, 80:1, 80:3, 80:14, 88:16, 98:20, 113:6, 114:18, 114:19, 115:7, 116:6, 118:16, 120:17, 134:21, 134:23 looks 11:14, 12:7, 27:3, 27:15, 27:16, 29:17, 30:21, 49:17, 50:6, 55:14, 64:7, 116:3 los 2:7 lot 23:13, 32:21, 107:19 loud 65:10 lower 6:11 lucas 2:30, 5:10 lunch 99:23, 100:10	M m-a-e-s 63:2 machine 1:28 made 73:23 maes 4:4, 63:2, 63:5, 63:21, 64:6, 64:14 main 61:7 make 36:13, 37:19, 37:24, 38:2, 132:1, 134:16, 136:4, 136:14 makes 70:6, 85:10, 87:25, 96:4, 134:13 making 44:18, 60:23 manner 47:11 many 6:21, 8:21, 23:16, 25:20, 25:22, 27:18, 50:24, 53:20, 57:14, 60:12, 80:19, 95:16, 95:17, 95:18, 112:20 map 125:24 march 3:20, 21:23, 22:11, 22:12, 22:14, 65:5 marked 10:17, 10:22, 21:16, 25:22, 29:3, 48:10, 49:4, 49:18, 55:1, 63:16
---	--	--	---

marks 137:13 marshall 1:3, 5:6 match 115:12 matched 20:14 material 126:11 materials 16:20, 16:23, 31:21, 32:15, 97:11 matter 5:3 matters 124:16 maybe 8:18, 10:3, 12:25, 18:2, 23:20, 23:25, 24:5, 36:17, 37:2, 39:10, 76:21, 82:21, 107:24, 108:4, 128:10, 128:16 mean 9:14, 14:19, 18:14, 18:22, 35:18, 38:16, 39:1, 39:23, 42:2, 42:9, 42:12, 44:17, 54:6, 61:25, 68:7, 74:5, 75:21, 82:20, 85:15, 85:20, 93:14, 94:14, 95:3, 95:5, 96:8, 105:1, 105:21, 106:13, 106:19, 106:20, 107:15, 107:16, 110:1, 113:18, 117:14, 120:16, 121:14, 121:23, 122:1, 122:3,	122:6, 122:7, 123:22, 124:10, 124:16, 130:6, 133:2 meaning 36:25, 39:25, 40:3, 41:7, 41:17, 41:19, 42:6, 42:7, 42:11, 42:12, 42:13, 42:21, 44:21, 54:8, 56:11, 56:16, 56:21, 57:4, 57:8, 57:11, 57:14, 57:20, 57:25, 58:3, 58:6, 58:19, 72:14, 72:16, 72:24, 72:25, 73:3, 73:11, 74:1, 75:3, 78:11, 78:18, 82:14, 85:8, 90:20, 94:9, 94:17, 96:10, 96:16, 96:23, 119:12, 123:24, 128:3 meanings 39:21, 39:24, 40:22, 41:3, 41:23, 43:8, 43:17, 43:22, 44:6, 44:13, 44:21, 45:11, 45:18, 45:24, 46:8, 46:13, 46:20, 47:7, 47:15, 74:3, 107:19, 118:25, 119:19 means 37:1, 39:4, 40:15, 42:20, 45:16, 54:12, 56:1, 70:16, 73:8, 82:13,	82:25, 86:7, 127:24, 128:19, 130:14, 130:23 meant 31:5, 56:5, 57:23, 69:24, 72:9, 75:5, 95:21 media 5:1, 63:6, 76:19 meeting 10:5, 10:11 memorize 76:25 memory 14:21, 19:12, 22:18, 26:12, 26:18, 98:24, 112:20, 117:1 mention 75:11, 75:17, 75:18, 75:22, 126:4 mentioned 15:7, 31:8, 57:2, 59:2, 97:8 message 41:13, 46:16, 47:2, 47:3, 86:12, 94:21, 95:9, 95:14, 95:20, 98:5, 98:11, 98:18, 101:25, 111:3, 113:24, 115:21, 115:22, 115:23, 115:24, 116:8, 127:4, 127:5, 127:19, 128:22, 128:24, 130:22, 130:25, 132:7, 132:11, 132:13, 135:12, 135:15, 136:3, 136:5, 136:13, 136:14 messages 91:6, 98:5,	98:11, 98:18, 113:24, 115:17, 116:5, 122:24 messaging 7:12, 89:15, 90:3, 90:9, 90:10, 90:13, 90:19, 90:22, 90:25, 91:5, 91:13, 91:24, 92:8, 92:20, 93:3, 93:6, 93:8, 93:11, 93:14, 93:18, 94:8, 94:14, 95:17, 96:4, 96:10, 96:15, 97:23, 98:14, 101:24, 102:11, 102:13, 102:24 method 38:9, 38:22, 57:22, 65:14, 65:16, 66:11 methods 38:7, 38:15, 40:13, 57:23, 65:13, 66:10 michelle 1:25, 6:1, 140:10, 141:6 middle 39:11, 63:1, 65:23, 107:18 might 18:20, 21:3, 21:4, 21:5, 21:8, 22:1, 38:1, 42:17, 52:5, 54:6, 55:22, 57:16, 63:21, 71:16, 74:5, 82:20, 88:21, 94:14, 95:3, 95:4, 106:13, 108:15, 108:24, 127:10 mind 9:17, 9:24,
---	--	--	---

12:16, 14:25, 15:16, 15:18, 26:3, 26:24, 31:15, 32:11, 57:14, 60:4, 61:18, 61:21, 62:5, 95:22, 97:20, 103:5, 122:10, 122:14 mine 75:15 minor 13:1 minute 62:6, 84:20, 120:22 minutes 39:11, 76:22, 136:20, 136:22 misunderstood 134:20 mit 63:6 mixture 125:23, 126:14 mobile 51:11, 66:13 modification 105:6 modified 71:3, 101:14 modifier 72:20, 92:24 modifies 41:18, 42:7, 42:12, 71:15, 72:16, 72:24, 73:3 modify 42:10 modifying 71:6, 71:20, 72:2, 72:25, 93:3, 93:6, 93:7, 93:8 moment 38:18 monitor 5:9, 52:2	monitoring 51:20, 65:14, 66:11, 81:14 months 8:19 more 6:22, 6:23, 8:19, 9:3, 10:9, 14:2, 21:3, 23:17, 23:21, 23:23, 25:14, 26:8, 26:14, 26:22, 28:21, 30:12, 31:2, 31:3, 32:23, 39:1, 42:15, 42:20, 43:7, 43:16, 60:4, 67:20, 69:5, 76:22, 79:25, 90:20, 96:10, 96:16, 96:24, 105:19, 108:1, 122:13, 129:13 morning 6:13 most 104:18, 105:20 mostly 20:13, 25:12, 32:21, 104:16 much 15:19, 86:6, 112:19 multiple 23:19, 38:7, 38:14, 39:3, 39:4, 39:21, 39:24, 40:21, 41:3, 41:23, 44:6, 44:13, 44:21, 45:10, 45:18, 45:24, 46:8, 46:12, 46:20, 47:7, 47:15, 51:22, 74:2, 118:25, 119:12, 119:19	must 22:3, 118:22, 119:25, 121:4, 121:23 mutual 82:24 mutually 121:15, 122:5 myself 65:12 <hr/> N <hr/> nail 85:13, 85:15 name 6:14, 17:20, 30:11, 63:22 named 63:2 narrow 42:20, 42:22 narrowed 42:13 narrower 71:24, 71:25, 73:9, 73:14, 73:17, 93:11, 93:19 narrowing 42:16, 72:3 narrows 40:5 ne 2:16, 2:24 nearby 19:14 nearly 117:1 necessarily 108:12, 133:21 need 14:10, 39:8, 50:8, 130:5, 135:4, 136:20 needed 76:20, 105:24 needs 55:24	neither 140:16 network 47:3, 47:4, 54:12, 102:16, 102:23, 103:2, 103:7, 103:9, 103:12, 103:13, 103:15, 103:19, 103:21, 103:22, 104:2, 104:8, 104:14, 104:21, 105:6, 105:18, 107:3, 107:5, 107:11, 107:23, 108:4, 108:7, 108:13, 108:15, 108:20, 109:2, 109:11, 109:13, 109:15, 109:20, 109:24, 110:2, 110:4, 110:21, 110:22, 111:3, 117:5, 117:10, 127:5, 127:6, 127:19, 128:22, 128:24, 130:21, 136:4, 136:5 networked 103:11 networking 103:11, 103:15, 104:23, 105:11, 105:12, 105:15 networks 18:11 new 117:14 next 11:20, 23:11, 34:5, 42:23, 43:13, 44:1, 46:15, 89:10, 90:24, 102:14, 114:22, 117:20 nice 99:23 nine 22:10
---	---	---	--

normal 128:13 notary 139:20 notation 53:11 noted 52:15, 100:16 notes 136:21 nothing 9:17, 12:16, 13:5, 15:16, 15:18, 26:3, 26:24, 31:15, 40:5, 57:13, 58:8, 60:4, 61:18, 61:21, 62:5, 73:22, 75:8, 95:22, 97:20, 109:14, 130:22, 137:11 notice 38:5, 63:20 notification 84:24, 85:7, 85:18, 85:22, 86:2, 86:10, 86:11, 88:4, 89:2 noun 129:3 number 3:27, 3:30, 3:34, 5:2, 5:6, 14:1, 14:3, 14:10, 30:8, 49:12, 50:1, 50:2, 55:7, 63:13, 63:15, 63:25, 64:6, 64:7, 64:8, 94:14, 115:21, 115:22, 115:23, 115:24 numbered 1:23 numbers 14:8, 70:2	numeral 69:18, 70:9, 74:19, 99:8 numerous 51:11 <hr/> o <hr/> oath 6:16, 6:19, 7:3 objection 7:24, 12:15, 13:16, 16:5, 16:17, 17:2, 24:18, 24:25, 25:9, 25:16, 26:11, 28:17, 32:17, 33:21, 36:9, 36:15, 37:12, 40:23, 42:14, 43:9, 43:18, 44:8, 45:12, 46:22, 47:17, 52:13, 53:2, 53:16, 56:13, 56:23, 57:12, 58:12, 58:22, 60:3, 67:10, 73:19, 75:1, 78:5, 79:17, 80:13, 81:23, 83:23, 85:5, 87:22, 88:10, 93:4, 93:20, 94:23, 98:22, 99:14, 100:24, 104:25, 106:11, 106:18, 107:13, 108:21, 109:25, 114:2, 116:16, 116:23, 117:17, 120:13, 123:21, 128:9, 134:2, 134:12, 134:25, 136:15 obtain 33:11, 34:9, 34:13 odd 69:25	oddly 126:15 offer 13:10, 13:13, 16:3, 46:4, 66:3, 82:6, 83:6 offered 114:9 offering 17:5, 116:13 offers 38:8 office 141:2 offices 1:28 oh 9:4, 11:19, 24:21, 25:20, 25:25, 29:4, 30:7, 30:17, 31:7, 36:10, 36:23, 51:8, 53:24, 63:12, 63:20, 64:25, 65:10, 80:18, 85:20, 96:8, 97:3, 98:6, 106:22, 114:15, 120:19, 120:21, 121:14, 135:24 once 100:6 one 5:2, 12:24, 14:5, 16:8, 16:12, 18:8, 19:1, 20:5, 24:13, 28:6, 28:21, 30:12, 30:19, 30:23, 31:9, 36:20, 37:3, 41:8, 42:3, 43:1, 44:2, 46:16, 46:24, 47:1, 47:3, 47:9, 48:8, 50:22, 52:20, 52:25, 54:25, 57:17, 62:6, 65:14, 65:17, 65:18, 66:14, 72:22, 73:4, 76:4, 81:25, 83:19, 86:7, 89:14, 99:4, 102:15, 102:22, 103:1, 105:19, 107:24, 108:1, 112:21, 114:15, 115:21, 115:22, 119:3, 119:6, 120:16, 121:10, 121:16, 121:19, 122:18, 123:4, 127:3, 127:5, 128:6, 128:14, 128:25, 129:9, 129:15, 129:19, 129:20, 131:18, 132:11, 134:13, 135:4, 135:11 one-on-one 23:21 ones 23:19 only 7:13, 67:23, 84:12, 86:25, 90:22, 91:4, 101:20, 101:23, 119:5, 122:14, 131:20, 134:9 open 7:11, 7:13, 10:24, 11:7, 11:10, 11:15, 11:23, 21:15, 21:18, 29:5, 41:16, 42:5, 48:12, 48:14, 48:15, 49:5, 49:20, 49:21, 55:4, 62:7, 62:10, 63:17,
---	---	--

			P
63:18, 72:13, 72:21, 73:5, 74:4, 80:25, 111:11, 114:25, 133:14 operating 106:1, 106:8, 108:16 operation 108:8 operations 41:15, 108:10 opine 39:15 opinion 12:21, 20:20, 40:18, 44:19, 46:5, 53:14, 56:18, 58:18, 59:8, 59:12, 59:21, 61:7, 61:11, 80:10, 82:7, 82:16, 83:6, 83:11, 83:13, 83:14, 83:21, 87:3, 87:6, 87:8, 89:13, 89:22, 90:8, 91:14, 92:11, 92:14, 92:15, 92:18, 93:14, 96:3, 96:13, 96:14, 96:15, 96:22, 98:14, 98:17, 117:24, 118:8, 120:10, 131:14, 131:18, 131:24, 132:2 opinions 8:4, 12:11, 12:13, 13:8, 13:10, 13:14, 16:3, 17:1, 17:5, 35:9, 39:14, 43:8, 46:8, 52:24, 53:23, 58:21,	78:1, 80:4, 82:11, 84:20, 91:25, 97:16, 97:19, 101:5, 114:7, 116:14, 123:18, 127:14 opposed 20:5, 24:9 oracle 64:17, 64:19 oral 1:16, 1:20, 140:6 order 11:3 ordinary 17:9, 54:8, 56:10, 56:16, 57:4, 57:25, 58:3, 58:6, 58:18, 68:12, 73:11, 94:9, 128:3, 128:8 organized 103:10 origin 33:15, 36:5 original 31:8, 33:14 originally 69:24 os 104:24, 105:2, 105:7, 105:12, 106:21 osi 104:2 other 7:11, 9:16, 9:22, 10:4, 12:19, 12:20, 15:2, 15:4, 15:14, 15:17, 16:1, 16:9, 16:13, 28:11, 28:14, 28:15, 30:23, 30:25, 31:7, 31:13,	36:20, 51:4, 52:20, 52:25, 53:6, 56:25, 61:10, 67:5, 69:7, 74:14, 76:4, 87:5, 88:16, 89:17, 90:11, 90:17, 91:11, 95:4, 101:3, 101:12, 104:4, 119:4, 119:18, 121:10, 125:1, 125:12, 126:2 others 31:9, 46:2, 60:13, 119:7, 128:6, 129:10, 129:21 otherwise 103:21, 103:23, 124:15 out 26:18, 28:5, 44:24, 61:5, 63:10, 65:10, 68:14, 71:8, 89:8, 107:22, 113:13, 118:18, 124:14, 124:16, 137:10 outside 13:11, 108:7, 109:24 over 23:22, 109:20, 125:24 overlap 27:16, 83:17 overview 50:13, 50:21 own 24:11, 34:4, 60:13 owner 24:8, 24:9, 24:16, 24:22 owners 24:2, 24:7	pace 21:6 page 3:2, 3:5, 3:6, 3:10, 3:19, 3:24, 4:2, 12:3, 13:24, 14:1, 14:6, 14:10, 21:22, 22:10, 22:14, 23:4, 23:7, 23:11, 26:25, 27:3, 27:5, 27:9, 28:20, 29:9, 29:10, 29:20, 30:11, 31:11, 46:18, 47:5, 48:18, 48:24, 49:10, 49:12, 49:24, 49:25, 51:9, 55:14, 62:3, 62:11, 62:12, 62:16, 62:25, 64:1, 66:19, 67:22, 68:4, 68:16, 72:6, 74:6, 81:5, 98:24, 99:4, 100:13, 117:2, 124:21, 127:1, 135:24, 138:2 pages 11:6, 48:20, 49:13, 140:13 pair 103:11, 103:15 paragraphs 19:18, 43:20, 43:22, 44:10, 44:12, 44:15, 45:19, 69:5, 75:18, 90:17, 91:18, 119:10, 119:12, 120:2, 120:4, 120:5,

127:15 paraphrase 102:5 parentheses 105:4 parenthetical 123:10, 123:14, 124:6 parker 2:31 part 10:6, 18:23, 19:2, 19:3, 20:24, 33:13, 36:18, 41:20, 51:1, 65:4, 72:23, 85:3, 91:11, 92:6, 97:16, 102:21, 105:3, 107:5, 107:24, 113:19, 123:20, 127:25, 135:11 particular 41:13, 43:4, 47:3, 47:10, 47:11, 86:21, 110:22, 110:25, 127:5, 127:19, 127:24, 128:2, 128:13, 128:17, 128:22, 128:24, 128:25, 129:2, 129:9, 129:18, 129:24, 130:5, 130:13, 130:21, 136:4, 136:14 particularly 72:12 parties 5:11, 14:14, 140:18, 140:20 parts 67:23, 68:3, 68:15, 68:17, 132:4 party's 32:2, 32:10	pass 136:18 passage 123:5 passages 125:12, 126:3 past 23:22, 77:3 patent's 130:20 patentee's 123:23 patents 9:8, 14:13, 15:20, 16:10, 16:16, 16:21, 17:1, 17:13, 19:5, 19:8, 24:11, 24:14, 27:13, 28:22, 44:25, 48:6, 50:14, 50:21, 52:18, 53:15, 56:12, 61:19, 61:23, 62:21, 67:9, 68:12, 68:20, 85:1, 94:10, 94:16, 95:7, 97:9, 109:8, 110:7 patti 63:5, 63:7 pdf 62:12, 81:7, 112:24 peachtree 2:16 peaked 63:11 penalty 7:4, 139:7 pending 16:9, 24:14, 120:20 people 20:11, 57:16, 104:18 percent 24:6	percentages 24:4 performs 54:13, 55:20, 56:2, 56:4, 56:6 perjury 7:4, 139:7 person 19:1, 19:24, 20:15, 33:24, 40:3, 45:3, 75:9, 77:11, 78:8, 78:10, 78:15, 86:20, 87:15, 87:19, 89:4, 89:6, 93:23, 94:15, 96:19, 103:19, 135:8 persons 20:2 perspective 60:6 ph 3:13, 3:16, 11:5, 12:1, 30:13 philip 2:4, 5:15, 6:14 phrase 35:12, 35:24, 36:1, 82:9, 88:3, 97:22, 125:5, 126:1, 126:7, 132:8, 132:14, 135:17 phrases 125:19, 132:4 picture 56:15 piece 55:20 pieces 8:2, 15:22, 16:2, 27:17 place 88:13 plain 54:7, 56:10,	56:15, 57:3, 57:25, 58:3, 58:6, 58:18, 73:10, 94:9, 128:7 plaintiff 1:6, 1:22, 2:3, 5:16, 6:15, 24:10, 24:16, 24:22 plan 51:17 planet 5:11, 6:2 pleading 27:22 please 5:13, 6:4, 10:23, 13:21, 21:15, 23:4, 37:22, 48:11, 49:5, 49:19, 55:3, 63:18, 66:6, 82:18, 83:3 plurality 41:8 plus 27:13 point 12:20, 35:14, 37:2, 38:20, 43:23, 44:11, 44:24, 45:17, 46:1, 46:13, 51:23, 73:23, 81:3 policies 51:20, 66:24, 66:25 policy 52:1, 52:3, 65:18, 65:19, 66:15, 81:13, 81:14 portion 100:8 portions 98:10
--	--	--	---

<p>portray 50:23</p> <p>posita 20:21, 78:15, 84:13, 90:1</p> <p>possibilities 71:5, 107:9, 108:2, 109:22, 117:11</p> <p>possibility 72:22, 106:13</p> <p>possible 23:18, 38:3, 38:18, 42:3, 42:4, 56:24, 58:13, 72:1, 75:24, 78:6, 87:24, 107:21, 108:23, 109:6, 109:9, 110:6, 110:11, 133:14, 134:7, 135:2</p> <p>possibles 109:4</p> <p>possibly 8:9, 75:4, 106:6, 136:16</p> <p>posted 11:16</p> <p>pr4-2 3:17, 3:22, 21:20, 22:8, 29:8</p> <p>predates 85:1</p> <p>prefer 13:25</p> <p>prefix 41:18, 42:7, 42:12, 59:17, 70:22, 72:15, 72:24, 73:2</p> <p>preliminary 3:17, 3:22, 21:21, 22:8, 29:8</p> <p>preparation 9:12, 10:2,</p>	<p>14:12</p> <p>prepare 9:5</p> <p>preparing 8:22, 30:19, 30:20</p> <p>present 2:29, 10:4</p> <p>presentation 86:22</p> <p>presenting 84:24, 85:7, 85:21, 86:2, 86:5, 86:10, 87:3, 88:4, 89:2</p> <p>pretty 34:18, 37:14, 69:3, 94:12, 105:15, 108:22, 128:18</p> <p>prevent 7:15</p> <p>previous 46:24</p> <p>primarily 104:18, 125:23, 126:15</p> <p>prior 16:25, 17:4, 21:1, 61:22</p> <p>priority 19:7, 19:21, 20:1, 57:2</p> <p>probably 8:19, 15:23, 15:25, 18:7, 23:23, 24:6, 31:9, 35:1, 36:16, 57:15, 58:9, 58:23, 77:16, 83:25, 114:4, 116:25, 117:13</p> <p>procedure 1:30</p> <p>proceed 6:12</p> <p>proceedings 16:10, 16:20,</p>	<p>137:17</p> <p>process 87:16, 87:20, 88:19, 88:25, 89:2, 89:5, 122:24</p> <p>processer 50:18, 111:24</p> <p>processor 51:6, 51:10, 51:15, 112:6, 115:2</p> <p>produced 1:21</p> <p>professional 1:27, 140:12</p> <p>programmer 109:5, 130:2</p> <p>programming 18:23, 105:20</p> <p>property 136:13</p> <p>propose 74:1</p> <p>proposed 14:14, 14:17, 14:19, 28:1, 32:2, 32:10, 79:24, 129:8, 135:14</p> <p>prosecution 14:13, 15:20, 16:4, 97:2, 97:5, 97:18</p> <p>protocols 70:5, 104:15, 104:19, 114:4</p> <p>proven 21:4</p> <p>provide 8:6, 38:5, 38:7, 50:13, 79:7, 104:19, 127:18</p> <p>provided 10:19</p> <p>provider 70:14</p>	<p>provisions 1:30</p> <p>public 64:23, 139:20</p> <p>publication 63:24, 63:25, 64:23, 67:8, 68:19</p> <p>pull 133:19</p> <p>pulled 10:25</p> <p>pure 23:20</p> <p>purport 74:1</p> <p>purpose 44:23, 44:24</p> <p>purposes 99:13, 100:23</p> <p>pursuant 1:29</p> <p>put 8:2, 34:24, 73:17, 84:2, 87:11, 118:6, 126:9</p> <p>putting 29:24</p> <p>pwang@raklaw 2:9</p> <hr/> <p style="text-align: center;">Q</p> <hr/> <p>qualifications 20:10</p> <p>qualifies 127:18</p> <p>question 13:18, 13:20, 14:16, 23:12, 24:20, 25:24, 26:14, 34:11, 37:14, 38:17, 39:12, 40:19, 40:20, 41:5, 41:17, 41:21, 41:25, 42:5, 44:20, 45:6,</p>
--	---	---	--

46:14, 46:19, 60:21, 68:13, 68:24, 71:22, 72:14, 72:21, 73:5, 74:5, 84:18, 88:21, 89:1, 90:5, 91:20, 95:10, 96:5, 98:7, 100:10, 100:15, 107:10, 110:8, 110:19, 120:6, 120:20, 128:15, 134:20 questions 34:9, 35:2, 126:12, 137:8 quick 29:17, 99:25, 126:18 quinn 2:23, 5:23 quite 15:23, 56:25, 85:8 quote 80:8, 80:9, 105:4, 105:5, 123:10, 124:23, 124:25, 125:1, 125:25 quotes 51:12, 87:11, 126:11, 126:13	read 21:24, 22:6, 26:3, 35:1, 54:18, 55:18, 60:7, 60:16, 63:25, 65:7, 65:9, 65:10, 66:9, 68:17, 78:8, 78:15, 86:1, 95:16, 113:16, 120:5, 124:10, 127:9 reading 15:25, 34:12, 65:12, 77:12, 117:1, 125:5, 125:6 real 126:18 realize 131:2 really 8:15, 9:1, 12:24, 15:21, 60:5, 60:13, 60:16, 68:6, 69:2, 69:9, 70:16, 86:4, 86:5, 86:18, 87:13, 94:11, 94:18, 110:7, 115:10, 115:12, 119:13, 120:6, 130:11, 130:23, 131:18 realtime 58:25, 71:14 reason 45:1, 67:23, 84:5, 86:25, 90:1, 138:2 reasonable 40:4, 40:15, 45:4, 46:11, 78:12, 78:18, 93:22, 93:25, 96:19, 129:11 reasonably 38:6, 84:14,	90:2 reasons 84:13, 90:15, 135:4 recall 8:8, 8:13, 8:21, 9:21, 17:3, 17:7, 19:21, 22:16, 25:25, 31:1, 32:20, 35:3, 59:6, 61:10, 75:13, 76:1, 80:5, 80:14, 88:14, 92:25, 94:3, 97:4, 97:13, 98:8, 98:9, 98:12, 101:13, 101:17, 101:18, 112:12, 112:16, 116:20, 125:19 receipt 47:2, 127:4, 132:6, 132:12, 133:18 receive 122:23, 133:23, 134:9, 134:18 received 67:2, 122:24, 132:18, 133:25 receives 41:13, 91:6, 101:25 recent 21:4 recess 47:25, 78:25, 126:22, 137:3 recited 58:19, 59:5 recites 41:8 recollection 26:7, 30:18, 76:3, 112:19 record 1:31, 47:22,	47:24, 48:2, 78:22, 78:24, 79:2, 99:19, 126:18, 126:21, 126:24, 137:1, 137:5, 137:15 redwood 64:17 refer 13:25, 14:8, 38:14, 50:8, 97:7, 118:4 reference 28:6, 63:2, 66:21 references 9:9, 9:13, 9:16, 16:25, 17:5, 61:25, 62:13 referencing 69:13 referred 89:21, 128:22 referring 22:23, 23:2, 31:6, 36:11, 39:22, 68:8, 76:8, 90:17, 91:9, 91:18, 92:4, 95:21, 98:18, 104:6, 105:9, 110:6, 119:5, 126:2, 132:21 refers 38:24, 103:8 refresh 30:18, 76:3 regarding 28:22, 34:20, 38:9, 101:9, 102:11, 116:19 registered 1:26, 140:12 related 16:24, 17:18, 18:1, 18:4,
R			
raise 6:4 raising 119:19 raleigh 3:26, 3:28, 3:31 range 107:8, 109:3 ratio 23:21 rd 65:5			

19:3, 33:15, 43:11, 83:12, 83:16, 84:20, 90:13, 90:17, 91:18, 109:7, 115:18, 140:17 relates 80:17, 135:3 relating 51:2, 116:5 relative 59:18, 60:19, 70:22, 140:19 relevant 97:19, 109:7 relied 55:13 rely 21:5, 55:16, 77:5 relying 61:2 remember 8:15, 9:24, 10:12, 15:21, 20:7, 26:7, 26:16, 26:20, 26:21, 31:1, 32:22, 33:3, 34:24, 97:17, 101:16, 104:5, 104:10, 104:11, 112:13 remote 2:31, 5:10 remotely 5:12 rename 63:12 render 90:19, 96:10, 96:23 renders 96:15 repeated 28:7, 116:1 replying 121:17	report 13:8, 13:11, 13:15, 13:24, 17:9, 33:6, 33:13, 51:9, 58:10, 82:10, 82:18, 82:20, 82:25, 86:20, 87:7, 91:11, 100:13, 101:9, 114:9, 131:6, 131:15 reported 1:27 reporter 1:25, 1:27, 6:1, 6:4, 6:10, 99:17, 126:17, 140:11, 140:12 reporter's 3:7, 140:5 represent 5:14, 6:14 represented 24:1 representing 5:11, 5:19, 5:23, 6:2 represents 8:3, 34:19 request 106:7 require 110:24 required 13:19, 18:23 requiring 105:5 research 1:4, 5:3, 5:17, 13:19 resend 63:13 resolve 73:18 respect 84:16, 89:18 respective 132:7, 132:13	respond 134:18 response 100:8, 132:23, 133:7, 133:9, 133:15, 133:17, 133:22, 133:24, 133:25, 134:10, 134:18, 134:22 response-generat- ed 132:17 responsive 41:21 rest 36:17, 61:8, 69:2, 85:24, 119:9, 119:12 results 38:8 retained 8:11 return 70:17 review 17:4, 31:24, 32:6, 67:20, 76:9 reviewed 9:7, 14:12, 15:9, 22:20, 23:2, 30:19, 30:24, 31:14, 32:14, 33:1, 76:2, 97:15 reviewing 15:19, 16:1, 31:2, 69:8, 112:16 richardson 2:15, 5:19, 5:21, 137:7 ring 64:12, 82:9 rings 32:8 road 2:24	rotate 112:24, 114:23 rough 19:21 roughly 88:6, 104:7 row 28:7, 28:8, 28:12 rows 27:18, 28:12, 28:14 rpr 141:6 rsp 1:9, 5:7 rules 1:29 ruling 84:1, 84:9 rulings 26:16 run 18:20, 40:8, 55:22 russ 2:5, 5:16 <hr/> S <hr/> safe 76:13 said 23:16, 36:6, 37:20, 53:20, 66:4, 71:16, 75:5, 76:1, 92:22, 101:10, 101:17, 104:9, 104:23, 106:20, 107:25, 109:12, 121:1, 127:10, 129:10, 129:13, 129:20 sam-hw-2 3:35, 55:8 same 7:3, 11:18, 23:20, 26:14,
---	---	---	--

28:8, 29:15, 29:22, 30:8, 31:10, 34:8, 42:2, 45:6, 45:13, 46:14, 46:19, 46:23, 47:8, 55:14, 61:8, 63:14, 64:6, 64:7, 64:8, 64:19, 67:9, 67:17, 68:10, 73:8, 89:25, 90:5, 92:6, 92:14, 92:15, 92:16, 93:2, 93:15, 94:5, 105:11, 107:10, 110:10, 115:9, 115:11, 116:3, 120:16, 121:25, 122:4, 122:8 samsung 1:10, 1:11, 1:12, 5:4, 5:19, 5:23, 27:21, 28:21, 30:12, 61:16, 61:19 samsung's 3:17, 3:22, 21:20, 22:7, 28:1, 29:7 satisfied 20:9, 65:19 satisfies 65:17, 66:14 saw 31:7 saying 20:15, 36:23, 45:1, 53:10, 72:25, 82:20, 85:9, 85:13, 85:21, 95:12, 109:16, 124:2, 124:12, 130:4, 135:19 says 22:7, 30:12,	35:10, 48:18, 49:10, 49:12, 49:24, 49:25, 50:2, 52:23, 53:4, 62:16, 64:24, 65:3, 66:9, 66:20, 69:7, 75:12, 80:1, 81:10, 81:16, 82:2, 84:16, 86:4, 87:12, 91:17, 92:3, 110:20, 110:23, 111:1, 111:22, 112:4, 113:16, 114:12, 115:12, 115:21, 123:14, 124:3, 124:7, 132:6, 132:17, 132:22 scale 96:18 schools 17:19 science 17:15, 17:17, 17:22, 109:21 scope 38:6, 45:3, 59:18, 60:19, 70:22, 71:24, 75:9, 82:8, 96:20, 122:3 screen 7:10 scroll 111:15 scrolling 15:22, 16:1 seal 141:2 searches 15:23 second 22:4, 30:2, 49:12, 49:25, 54:25, 62:3, 66:1, 84:12,	111:13, 132:2 section 41:2, 44:2, 45:14, 46:2, 98:16, 119:21 sections 15:24, 19:14, 46:5 secure 51:18, 107:10, 107:12, 111:3, 111:8, 113:5, 113:7, 122:24, 132:7, 132:13 secured 106:17, 113:12, 113:22, 113:25, 117:3, 117:9 seeing 67:19 seem 60:7, 64:6, 69:23, 72:19, 72:24, 115:11, 116:4, 131:24 seemed 20:8, 57:3, 70:3 seems 25:3, 48:25, 50:23, 65:25, 77:4, 85:14, 115:9, 124:19, 135:7 seen 22:15, 22:16, 25:4, 25:13, 60:15, 64:10, 67:16, 92:24 send 10:16, 10:18, 10:20, 21:14, 29:1, 48:7, 63:11, 106:9, 106:15 sense 132:1, 134:14, 134:16	sent 8:10, 11:18, 115:17 sentence 56:6, 65:23, 66:1, 69:6, 72:12, 78:13, 84:13, 90:24, 121:1, 131:19, 131:25, 132:2, 132:22 sentences 84:12, 90:22, 91:14, 92:1, 131:23 separate 23:12, 90:14 separately 80:8 september 64:24 series 104:14 served 76:24 server 18:20, 18:21, 51:13, 55:23, 111:4, 111:6 service 18:18, 41:9, 41:14, 50:17, 51:3, 51:6, 51:10, 51:12, 51:13, 51:14, 51:15, 51:16, 51:20, 52:2, 52:7, 52:16, 52:23, 53:7, 55:21, 56:4, 56:7, 81:14, 99:9, 99:12, 100:17, 100:19, 100:21, 101:5, 111:24, 111:25, 112:6, 112:7, 115:1, 115:2 service-type 51:4
---	--	--	--

services 18:10, 18:16, 18:17, 114:12 set 14:5, 33:19, 34:14, 35:6, 44:22, 45:19, 45:24, 46:8, 46:10, 46:19, 47:6, 104:18, 108:16, 128:10, 129:19 sets 129:17 seven 28:20, 29:10, 30:11 several 24:11, 70:1, 73:23, 79:10, 101:2, 115:20, 116:8 shaker 2:30, 5:10 shores 64:17 shorthand 1:25, 140:11 should 8:23, 11:20, 12:25, 38:9, 62:15, 75:5, 75:7, 133:11 show 53:14, 63:8, 113:5, 115:16 showing 80:5 shown 99:2 shows 51:12, 51:22, 51:24, 69:20, 81:20 sic 39:9 side 29:24	signature 3:5, 3:6, 138:1, 140:24 signature-plkal 141:4 signed 22:12 significant 20:20, 23:15 silently 55:21 similar 20:12, 29:18, 29:25, 30:21, 48:25, 84:13, 90:1, 92:11 simplest 52:21 simply 53:18, 77:24, 80:6, 118:6, 130:7 simpson 2:31 since 12:13, 48:5, 56:22, 56:25, 58:17, 101:11, 128:21 sir 53:24 sitting 12:22, 13:7, 13:9, 26:3, 26:21, 59:7, 59:10, 60:6, 71:14, 71:21, 82:11, 95:22, 97:18, 97:20 six 27:9, 27:10, 27:13, 30:6, 30:7, 104:4 skill 17:9, 19:24, 20:15, 20:19, 40:3, 45:4, 68:12, 75:9,	77:12, 78:8, 78:10, 86:21, 87:15, 87:19, 89:4, 89:6, 93:23, 94:15, 96:19 skilled 103:19 skills 19:3, 20:8, 20:14, 20:24, 21:12, 34:4, 35:11, 60:13, 60:18, 61:6, 92:16 skipped 131:2 software 45:8, 54:13, 55:20, 56:2, 56:6, 67:4, 68:23, 105:22, 109:19, 117:12, 117:22, 118:3, 118:5, 118:9, 118:20, 118:22, 119:23, 119:24, 120:11, 121:2, 121:3, 122:18, 122:23, 123:1, 123:6, 123:14, 123:24, 124:7, 124:11, 124:13, 124:18, 124:20, 125:2, 125:8, 125:13, 125:17, 125:18, 125:22, 125:23, 126:1, 126:4, 126:5, 126:7, 126:10, 126:12, 126:14, 130:3, 130:19, 133:17 softwares 18:18 solutions 21:2 some 8:1, 8:2, 9:9,	9:11, 10:3, 10:12, 12:19, 14:22, 14:24, 15:23, 18:2, 19:3, 20:8, 20:17, 20:23, 23:18, 25:22, 27:16, 31:9, 32:4, 35:1, 38:19, 42:10, 46:4, 50:22, 51:4, 53:5, 66:10, 73:11, 76:6, 76:7, 79:23, 81:25, 87:5, 88:16, 94:13, 106:3, 111:5, 111:7, 112:1, 112:8, 118:4, 121:11, 122:22, 123:2, 123:24, 128:23, 130:5, 135:1, 136:3 someone 13:18, 21:10, 55:21, 56:4, 60:14, 95:19 someplace 66:5 something 13:6, 15:9, 17:22, 18:3, 21:4, 21:5, 23:1, 25:1, 25:3, 26:2, 38:2, 43:24, 65:25, 68:9, 72:2, 73:9, 73:13, 77:9, 85:10, 87:16, 87:20, 94:20, 95:3, 95:4, 95:8, 96:18, 98:19, 101:14, 106:7, 108:2, 108:14, 109:1, 109:12, 109:17,
---	--	--	---

110:6, 117:19, 121:7, 122:11, 128:10, 128:16, 128:17, 129:16, 129:18, 134:18 sometime 8:18 sometimes 24:6, 94:25, 116:11 somewhat 70:3 somewhere 19:18, 131:1 sorry 30:7, 37:10, 43:1, 50:1, 63:12, 66:4, 72:8, 76:17, 91:21, 120:21 sort 108:10 sounded 129:11, 129:13 sounds 32:15, 81:19, 124:1, 128:8, 133:17 source 88:8, 88:12, 88:19, 89:3, 89:7, 105:22 speak 10:1, 119:14 specialized 129:24, 130:13 specific 14:2, 37:2, 37:3, 47:14, 74:1, 79:25, 85:6, 85:16, 85:18, 86:8, 88:13, 90:21, 91:14, 91:25, 92:1, 94:17, 95:4, 95:11, 135:5, 135:9 specifically 9:25, 44:13,	57:14, 58:9, 58:15, 67:12, 80:18, 82:1, 82:15, 91:12, 91:21, 91:22, 91:23, 97:6, 97:14, 101:9, 118:8, 118:20, 122:13 specification 9:7, 40:8, 50:14, 72:13, 73:22, 90:23, 95:2, 95:25, 97:24, 98:2, 98:4, 98:10, 101:19, 123:5, 123:20, 125:21 specificity 42:16, 42:20 specified 65:18, 103:21, 103:24 specify 86:18 speculate 26:5 spend 15:19 spent 8:21, 9:11 st 2:16 stack 81:12, 81:22, 82:2, 82:4, 102:16, 102:23, 103:2, 103:7, 103:12, 103:13, 103:16, 103:19, 103:21, 103:22, 104:2, 104:8, 104:14, 104:24, 105:7, 105:12, 105:16, 105:18, 105:24, 107:3, 107:5, 107:11, 107:23, 108:4,	108:7, 108:13, 108:15, 108:20, 109:2, 109:11, 109:13, 109:15, 109:24, 110:21, 110:22, 114:12, 117:5, 117:10, 124:23 stacks 108:4 stand 8:4 standard 33:8, 97:7, 103:13, 104:2, 105:15, 108:3 standards 33:19, 34:14 stands 105:19 start 8:16, 14:6, 124:4, 132:10 started 61:5 starting 29:20 starts 53:24, 117:24 state 1:26, 5:14, 17:9, 33:8, 139:21, 140:1, 140:11 stated 1:30, 101:12, 131:18, 140:13 statement 12:10, 18:15, 38:12, 54:17, 56:1, 60:10, 60:23 states 1:1, 5:5, 28:21, 125:21 stenotype 1:28 stephanie 64:13	still 60:6, 85:6, 85:14, 85:22, 86:19, 90:12, 96:6, 120:17 stipulation 82:24 stop 107:17 street 2:16 strike 50:1, 91:22 stronger 118:14 structure 112:6 students 20:12, 20:13 sub 110:16 subject 7:3 submitted 7:19, 11:13, 12:2, 12:5, 12:14, 140:23 subscribed 139:14, 141:1 subsection 42:25, 43:4, 47:1, 110:16, 127:2 subset 65:15, 66:13 suggest 45:15 suggested 20:7 suggests 67:17, 68:5, 68:18, 71:16, 122:18 suite 2:25 sullivan 2:23 sum 81:15
--	---	--	---

summarized 87:4 summarizes 87:2, 131:21 summary 59:19, 87:8 sunwoo 2:14, 5:20 supporting 20:20 supposed 32:13 sure 9:2, 9:4, 11:14, 22:4, 22:7, 24:19, 32:11, 32:18, 34:13, 40:7, 48:13, 52:14, 62:8, 68:15, 69:22, 70:19, 73:1, 79:18, 79:20, 82:13, 82:19, 83:24, 85:25, 95:8, 96:5, 104:13, 105:1, 110:8, 111:18, 112:18, 116:10, 120:5, 120:9, 123:22, 131:7, 131:21, 133:16, 134:13, 136:8, 136:24 suspect 7:25, 31:7, 34:17, 36:1, 82:14 sworn 1:22, 6:3, 6:8, 139:14, 141:1 sync 11:1, 11:23 syncing 107:24 system 38:15, 40:12, 51:5, 57:22, 79:24, 87:21,	88:8, 88:17, 105:15, 106:2, 106:8, 108:16, 114:4, 133:18, 133:23, 134:1, 134:5, 134:6, 134:8, 134:21, 134:23, 135:2, 135:7, 136:2, 136:6, 136:11, 136:12 systems 17:14, 18:1, 18:2, 18:5, 38:16, 57:22, 104:21, 109:20 <hr/> T <hr/> table 23:8, 27:1, 27:8, 28:5, 28:13, 30:1, 30:2, 30:3, 30:6 tables 22:17, 27:12, 28:8, 29:20, 30:22, 32:24, 76:7 take 53:4, 110:17, 136:21 taken 1:22, 26:18, 47:25, 78:25, 126:22, 137:3, 140:19 taking 120:22 talk 47:9, 50:17, 70:18, 94:8, 126:10 talked 15:10, 71:1, 92:23, 94:1, 94:2 talking 9:11, 37:8,	39:20, 68:11, 72:11, 72:12, 83:18, 100:11, 107:6, 119:15, 122:22, 126:14, 130:1, 130:9, 130:24, 131:24, 134:5 talks 115:19, 135:11 tasks 20:12 teach 86:18 teaches 91:4, 101:23 team 19:2 tech 2:31 technical 33:24, 100:7 technically 70:4 technologies 21:2, 104:14, 104:19 technology 10:12, 21:7, 21:8, 21:9 telephone 2:8, 2:18, 2:27, 66:13 tell 31:12, 39:19, 41:4, 71:21, 86:6, 87:13, 122:15 tells 75:9 template 8:8, 8:9 ten 76:19, 136:22 ten-minute 136:21 terminate 106:10, 106:14,	106:25, 107:12, 107:15, 107:19, 109:23, 110:1 terminated 110:20, 110:21, 110:25, 117:5, 117:9 terminating 106:16 terms 3:34, 9:22, 12:20, 17:16, 21:11, 23:10, 24:5, 25:15, 25:22, 26:8, 26:15, 26:22, 27:6, 27:10, 27:14, 27:17, 27:18, 27:20, 28:1, 28:15, 30:2, 30:3, 30:4, 30:6, 30:7, 30:9, 32:5, 39:14, 40:13, 44:16, 44:25, 45:2, 46:2, 50:22, 50:25, 51:7, 53:20, 55:7, 55:13, 57:14, 117:13 testified 6:8, 6:19, 22:19, 23:17, 56:20, 84:19 testify 28:22 testifying 7:4, 7:16 testimony 7:3, 23:19, 33:1, 34:21, 88:17, 140:18 texas 1:2, 1:26, 5:6, 140:1, 140:12, 141:7 text 33:14, 34:17,
---	--	--	---

116:10 th 1:23, 2:6, 3:20, 3:25, 5:8, 11:5, 21:23, 22:11, 22:12, 22:14, 29:11, 64:24, 141:2 thank 5:25, 6:10, 10:14, 21:13, 45:5, 48:4, 55:25, 65:21, 79:5, 127:12, 136:19, 137:8 themselves 5:14 theory 128:11 thereby 105:5 therefore 21:2, 46:12 therein 68:17 thing 13:1, 26:13, 37:3, 42:2, 52:21, 61:7, 61:8, 68:2, 73:8, 86:7, 93:15, 105:11, 116:3, 122:4 things 15:24, 22:17, 26:17, 30:23, 32:20, 38:23, 38:24, 39:2, 51:4, 70:5, 92:4, 94:14, 95:16, 101:3, 101:12, 108:11, 109:4, 118:23, 119:25, 121:4, 121:9, 121:12, 121:13, 121:24, 122:1, 122:12, 122:15, 129:18,	133:9 thinking 7:16, 33:23 third 30:3, 55:15, 62:3 thought 14:4, 59:10, 69:24, 120:21 thoughts 8:3, 12:19, 20:16 three 6:22, 18:9, 20:3, 20:5, 20:21, 25:14, 26:8, 27:12, 28:8, 30:4, 31:2, 31:3, 48:7, 50:21, 53:15, 54:21, 56:14, 56:16, 62:12, 62:25, 81:7, 81:8, 81:9, 97:9, 111:14, 111:20, 119:9 three-page 3:32, 55:6 through 3:35, 15:22, 16:1, 35:2, 41:10, 45:20, 48:8, 55:8, 59:10, 74:12, 84:24, 85:7, 85:22, 86:2, 86:11, 88:4, 88:8, 88:12, 88:13, 89:3 throughout 45:15 time 5:9, 9:11, 11:18, 15:19, 19:10, 19:24, 47:11, 47:24, 48:2, 48:8,	56:19, 57:7, 67:19, 69:23, 77:12, 78:24, 79:2, 99:19, 105:21, 126:21, 126:24, 137:2, 137:5, 137:15 times 6:21, 6:23, 36:7, 73:23, 95:4, 99:3 title 21:25, 22:5, 22:6, 22:7, 62:19, 65:7 today 5:10, 6:1, 6:17, 7:2, 7:17, 8:2, 9:12, 10:4, 13:9, 26:4, 40:18, 56:22, 57:9, 57:11, 59:25, 60:6, 64:3, 71:14, 71:21, 73:24, 80:15, 82:16, 82:22 today's 5:8 together 12:25, 34:22, 34:25 took 136:3 top 42:24, 75:12, 80:18, 88:14, 95:15, 98:6, 104:3, 104:5, 104:10, 104:13, 116:9, 135:24 total 23:20, 24:5, 27:13, 27:19 traffic-shaping 81:13 transcript 140:22	transfer 104:20 transmission 107:17, 132:6, 132:12, 132:18, 132:24, 132:25, 133:7, 133:9, 133:14, 133:18, 133:19, 133:23, 134:9, 134:10, 134:22 transmitted 67:1 transport 114:12 tricky 122:8 triggers 46:17, 47:2, 127:4, 130:25, 132:12, 135:12, 135:15 trouble 14:9 true 11:11, 12:5, 48:21, 48:22, 49:1, 49:15, 50:3, 55:11, 59:25, 121:8, 139:8, 140:13 truly 40:9 truthfully 7:16 try 36:24, 37:4, 71:13, 76:25, 98:13, 120:23 trying 20:10, 35:20, 38:20, 40:11, 44:16, 45:16, 46:3, 88:23, 98:13, 104:4, 120:14, 122:8, 130:2, 130:18, 132:1
--	--	---	--

turn 13:21, 22:10, 23:4, 26:25, 27:8, 31:17, 33:5, 34:5, 50:9, 50:10, 53:22, 59:12, 62:11, 62:16, 65:21, 66:18, 74:6, 80:20, 82:17, 83:3, 89:10, 99:1, 111:9, 131:5, 136:22 turnbull 1:17, 1:21, 3:3, 3:13, 3:16, 5:3, 6:7, 6:14, 7:19, 10:14, 11:5, 11:8, 12:1, 12:4, 12:9, 21:13, 21:24, 23:13, 30:13, 39:9, 40:20, 44:19, 45:5, 48:3, 48:23, 49:16, 50:5, 50:10, 65:21, 79:4, 99:21, 120:18, 126:25, 136:19, 137:14, 139:11, 139:16, 140:7 turnbull's 11:3, 49:9, 49:23 turning 62:25 two 8:19, 10:8, 10:9, 10:20, 20:5, 26:15, 26:22, 38:22, 38:24, 39:1, 39:3, 39:4, 43:7, 43:16, 43:22, 62:16, 90:22, 91:14,	92:1, 104:21, 109:20, 118:9, 122:1, 129:17, 132:3, 132:4 type 17:25, 21:7, 22:22, 26:19, 31:5, 31:10, 42:17, 60:14, 67:5, 69:7, 85:18, 115:9, 115:11, 128:24 typed 7:25 types 77:25, 85:17, 108:24, 115:14 <hr/> U <hr/> u 62:16 uh-huh 114:14 unable 88:18 uncertain 35:22 uncertainty 35:13, 35:15, 35:19, 35:24, 36:25, 37:6, 37:8, 37:10 unclear 47:19, 59:17, 70:21, 103:10, 118:20, 121:2, 132:23 under 6:16, 6:19, 7:3, 8:3, 139:7, 141:1 undersigned 139:15, 140:10 understand 6:16, 7:1, 24:15, 24:21, 25:5, 33:19, 36:7, 40:11,	40:15, 40:17, 44:16, 44:18, 51:2, 57:23, 58:16, 62:20, 78:9, 78:17, 88:3, 88:23, 96:20, 113:17, 120:6, 120:8, 120:15, 133:4, 135:2 understanding 19:10, 19:23, 20:25, 21:2, 21:6, 33:11, 33:24, 34:2, 34:9, 34:14, 34:16, 34:20, 35:5, 35:12, 36:20, 52:19, 73:17, 74:2, 76:11, 81:18, 111:2, 113:22, 114:17, 115:6, 125:10, 130:18 understood 24:19, 41:24, 45:3, 57:20, 118:4 unfortunately 37:13 unique 88:1 unit 128:6, 129:9, 129:20 united 1:1, 5:5 universally 72:4 unknown 71:18 unless 13:12, 103:21, 103:23, 121:12 unrelated 67:24 until 59:25, 68:1	updating 111:19 urquhart 2:23 usage 67:3 use 35:20, 53:11, 57:16, 61:17, 61:20, 61:23, 90:24, 98:2, 115:11, 122:5, 126:1, 126:6, 128:20, 129:6, 130:20 useable 104:18 user 58:11, 84:24, 85:7, 85:22, 86:2, 86:11, 88:4, 108:12 uses 98:4, 98:11 using 36:24, 61:5, 68:10, 82:21, 89:25, 107:2, 107:5, 129:23, 130:12 usually 55:21 ut 17:21 <hr/> V <hr/> vague 130:4 valid 24:17, 24:24 variance 17:24 various 80:7, 105:23 verifiable 81:13 version 29:14, 48:19
--	--	---	--

versus 5:4 via 1:28, 7:2, 10:11, 10:21, 122:24 video 5:9, 10:12, 136:23 videoconference 1:29 videographer 2:30, 5:1, 5:10, 5:25, 47:23, 48:1, 76:18, 78:23, 79:1, 99:18, 126:20, 126:23, 137:1, 137:4, 137:9, 137:13 videotaped 1:16, 1:20, 5:2, 140:6 view 35:14, 37:17, 51:5 virtues 130:7 vitae 3:15 vocabulary 71:8, 121:12 voice 5:13 vs 1:8	17:4, 21:19, 24:21, 25:5, 25:13, 25:18, 26:14, 28:20, 29:6, 32:25, 34:1, 36:12, 36:19, 37:17, 40:24, 42:19, 43:12, 43:21, 44:11, 45:17, 46:25, 47:20, 47:21, 48:3, 48:11, 49:5, 49:8, 49:14, 49:19, 49:22, 52:17, 53:9, 53:22, 55:2, 56:18, 57:5, 57:18, 58:16, 59:3, 60:9, 63:17, 67:13, 73:25, 75:2, 76:17, 76:21, 76:23, 78:7, 78:21, 79:3, 79:21, 80:16, 82:6, 84:4, 85:9, 87:25, 88:15, 93:10, 94:1, 95:6, 98:25, 99:20, 101:4, 105:3, 106:15, 106:22, 107:20, 109:1, 110:3, 114:3, 116:18, 117:3, 117:20, 120:17, 123:23, 126:17, 126:19, 126:25, 128:12, 134:3, 134:15, 135:10, 136:17, 136:24, 137:12 want 21:5, 36:19, 39:9, 40:19, 65:10, 65:24, 80:20, 81:1,	100:12, 109:13, 110:14, 111:21, 112:24, 113:4, 118:7, 119:16, 119:18, 132:4 wanted 75:6, 99:7, 101:1 way 16:8, 16:12, 36:20, 36:24, 42:10, 52:20, 52:25, 66:25, 68:10, 76:4, 98:12, 101:8, 117:19, 120:23, 126:9, 128:21, 129:24, 130:13 ways 95:17, 105:22 we're 7:1, 11:1, 14:5, 37:5, 53:20, 57:6, 57:11, 73:21, 75:4, 82:21, 83:17, 85:12, 89:1, 103:7, 104:16, 107:24, 126:2, 130:24 webex 10:13 websites 67:3 welcome 48:3, 79:3, 99:20, 126:25 well-documented 104:18 well-known 84:25, 104:17 whatever 119:9 wherein 43:4, 46:16, 47:1, 83:7, 127:3, 131:11, 132:11, 135:11,	135:23 whether 16:9, 41:17, 42:5, 51:3, 52:25, 72:14, 73:7, 78:10, 78:17, 84:15, 86:21, 87:15, 87:20, 88:24, 89:4, 99:11, 113:11, 113:16, 118:20, 118:21, 119:23, 119:24, 121:2, 121:3, 133:6 whole 41:1, 42:17, 68:2, 90:11, 91:16, 92:2, 92:3 wide 107:8 wilshire 2:6 wireless 66:12, 66:22, 67:2 within 54:4, 69:21, 74:7, 74:19, 77:2, 110:20, 110:21, 110:25, 117:5, 117:9, 126:11, 130:24 without 29:24, 67:11, 67:20, 69:1, 69:8, 80:1, 98:20 witness 1:21, 5:20, 5:24, 6:2, 6:6, 7:25, 12:16, 13:17, 16:6, 16:18, 17:3, 21:17, 24:19, 25:1, 25:10, 25:17, 26:12,
W			
walked 74:12 walks 88:13 wang 2:4, 3:4, 5:15, 6:13, 6:14, 8:6, 10:18, 10:23, 12:17, 13:21, 16:8, 16:19,			

28:18, 29:4, 32:18, 33:22, 36:10, 36:16, 37:13, 42:15, 43:10, 43:19, 44:9, 45:13, 46:23, 47:18, 52:14, 53:3, 53:17, 56:14, 56:24, 57:13, 58:13, 58:23, 60:4, 67:11, 73:20, 78:6, 79:18, 80:14, 81:24, 83:24, 85:6, 87:23, 88:11, 93:5, 93:21, 94:24, 98:23, 99:15, 100:25, 105:1, 106:12, 106:19, 107:14, 108:22, 110:1, 116:17, 116:24, 117:18, 120:14, 123:22, 128:10, 134:13, 135:1, 136:16, 136:18, 136:25, 139:15, 140:23, 140:24 word 15:12, 35:21, 36:6, 37:8, 38:25, 52:9, 53:12, 56:21, 57:8, 57:19, 57:24, 58:6, 71:2, 74:10, 90:19, 92:19, 92:24, 93:3, 93:6, 93:7, 93:8, 94:2, 94:3, 94:8, 94:12, 95:20, 96:3, 96:6, 96:9, 96:15, 113:7, 113:8, 116:7, 116:8,	121:17, 121:20, 122:5, 128:18, 129:2, 130:11, 130:13, 130:14 wording 134:20 words 15:24, 71:8, 72:2, 116:11, 117:15, 118:10 work 8:11, 8:19, 18:20, 20:21, 24:5, 26:19, 60:15, 70:6, 108:3, 117:19 worked 20:11, 25:20, 25:21, 26:2, 26:17, 34:17, 34:22 working 8:16 works 130:19 world 71:8, 104:15 wouldn't 16:23, 76:25, 121:11, 124:15 written 35:16, 53:18, 59:9, 116:18 wrong 66:1 wrote 7:22, 122:9 Y ya 136:25 yeah 11:9, 15:1, 19:6, 20:23, 23:15, 25:25, 26:5, 26:16, 28:18, 30:7, 34:24, 36:19,	41:1, 43:21, 54:19, 62:20, 63:19, 66:6, 73:10, 76:5, 78:20, 81:24, 81:25, 89:12, 91:3, 93:5, 94:4, 96:13, 99:4, 105:8, 105:13, 107:8, 109:3, 109:16, 119:13, 119:15, 120:14, 128:20, 129:4, 134:3, 135:24, 135:25 year 77:3 years 18:10, 20:4, 20:5, 20:21, 23:22, 57:15, 77:17, 104:17 yellow 74:9, 74:16, 74:19, 77:22, 79:10, 80:8, 80:11 yourself 76:9 Z zone 35:13, 35:21, 35:24, 36:25, 37:1, 37:5 zoom 1:16, 1:20, 1:28, 7:2, 7:11, 7:13, 10:11, 10:13, 63:12, 140:6 . .138 3:5 .139 3:6 .140 3:7	.6 3:4 0 00103 1:9, 5:7 00215498 3:35, 55:8 0218395 4:3, 63:25 03 1:24, 5:9, 78:24 04 47:24 1 1 48:18, 78:24, 100:11 10 3:12, 3:15, 3:19, 3:24, 9:3, 12:3, 21:22, 22:14, 29:9, 39:10, 79:2 100 51:7, 51:10, 51:15, 74:20 104 66:22, 67:2 106 66:22, 67:2 108 66:22, 67:2 11 1:24, 5:9, 51:9, 66:19, 79:2, 126:21, 131:10, 135:10 114 81:5 116 100:11 117 14:13, 27:1, 27:6, 30:2, 49:15, 89:14,
---	---	---	--

91:23, 96:1, 100:12, 100:16, 100:22, 102:10, 111:9 1180 2:16 12 2:6, 47:24, 48:2, 141:8 1200 2:24 122 51:14 12424 2:6 13 23:10, 27:13, 30:2, 127:3, 135:22 15 39:10, 46:18, 74:6, 77:17, 99:4, 100:13 1500 2:25 16 50:17, 51:9, 51:12, 53:14, 74:16, 77:21, 80:17, 99:1, 100:11, 100:15 1638 51:13 1653 51:13, 51:17 1691 51:15, 52:7, 53:8, 99:8, 100:17, 100:19, 101:11 18 126:24 19 3:25, 13:22, 13:23, 14:7, 14:11, 15:3, 29:11, 31:17, 31:20, 64:24,	83:7, 83:21, 124:21 192 14:13, 27:9, 30:4, 45:7, 50:4, 117:21, 127:8, 127:11, 127:12, 131:10 195 48:20 196 127:2, 127:11 <hr/> 2 <hr/> 2 49:10, 99:19 20 11:6, 19:18, 47:5, 127:1 200 49:13, 70:1, 98:24, 117:2 2005 64:24, 65:5 2006 4:3, 63:25 2008 56:19, 59:22 2009 19:9, 56:19, 59:22 2010 19:9 2024 1:18, 1:24, 3:20, 3:25, 5:8, 11:5, 21:23, 22:12, 29:11, 60:1, 139:17, 140:8, 141:2 204 69:18, 70:10 21 2:16, 3:17 23 1:9, 5:7, 65:5 24 28:15, 111:22,	111:23, 112:12, 112:22, 113:4, 113:10, 115:17, 116:19 2408 113:9 2410 114:13 2420 114:14, 114:16 2428 113:10 25 33:5, 111:22, 112:4, 112:5, 112:12, 114:24, 115:16, 115:19, 116:13, 116:19, 141:8 2502 115:2 2510 115:21 2522 115:3 26 34:6, 34:10, 34:14, 38:4, 99:19 27 27:20, 28:1 2756 2:18 28 1:18, 1:23, 3:20, 5:8, 21:23, 22:11, 22:12, 22:14, 69:5, 140:8 29 3:22, 11:5, 20:17, 66:19, 69:3, 69:12, 70:7, 79:7, 79:9, 79:16, 79:21, 80:2, 80:5, 80:7, 80:16, 81:2,	81:10, 81:20 2:-cv 1:9, 5:7 <hr/> 3 <hr/> 3 1:24, 49:24, 126:21, 126:24, 137:2, 137:5, 137:15, 137:17 30 17:8, 18:9, 19:14, 19:19, 84:17, 84:21, 89:18, 89:22, 90:7, 91:11, 92:4, 141:2 30309 2:17 30328 2:26 31 50:11, 50:16, 51:9, 141:8 310 2:8 32 39:16, 40:1, 53:25 33 53:24, 54:15, 55:16, 56:1 34 59:13, 59:15, 60:10, 60:22, 70:18, 70:20, 137:2 35 41:6, 72:9 36 6:23, 23:17, 23:20 37 72:6, 72:7 38 75:23, 79:6, 80:4 39 74:7
--	--	--	--

395 64:8 <hr/> 4 <hr/> 40 78:3, 104:17 404 2:18 406 48:17 415 2:27 42 1:24, 43:3, 43:11, 82:17, 83:4, 83:10, 84:12, 137:5, 137:15 43 43:11, 137:17 44 43:13, 43:20, 89:11, 89:16, 91:15, 95:24, 96:9, 97:1, 98:1, 101:22 45 43:20 46 42:24, 44:2, 102:17, 105:4, 110:16 48 3:26 49 3:27, 45:7, 45:19, 117:25, 118:3, 118:19, 120:24, 121:22 <hr/> 5 <hr/> 50 3:30, 23:23, 23:25, 119:14, 122:17 500 3:35, 55:8 51 119:14, 123:4,	124:22 52 119:14, 125:11, 126:9 53 45:20 54 46:15, 131:5, 131:15, 131:25, 132:22 55 3:32 56 42:24, 47:1, 127:15, 127:17, 136:1 57 127:15 <hr/> 6 <hr/> 600 2:24 64 4:3 6486 2:27 <hr/> 7 <hr/> 7093 141:7 724 2:18 733 14:13, 23:8, 30:1, 48:17, 48:22, 49:2, 62:7, 62:22, 64:5, 67:14, 80:20, 83:7, 89:23, 90:7, 91:12, 91:21, 92:4 7474 2:8 <hr/> 8 <hr/> 8,406,733 3:26, 48:17	80 24:6 826 2:8 875 2:27 <hr/> 9 <hr/> 9,192,117 3:27, 49:12 9,615,192 3:30, 50:2 9,615,198 50:1 90025 2:7	
---	--	--	--